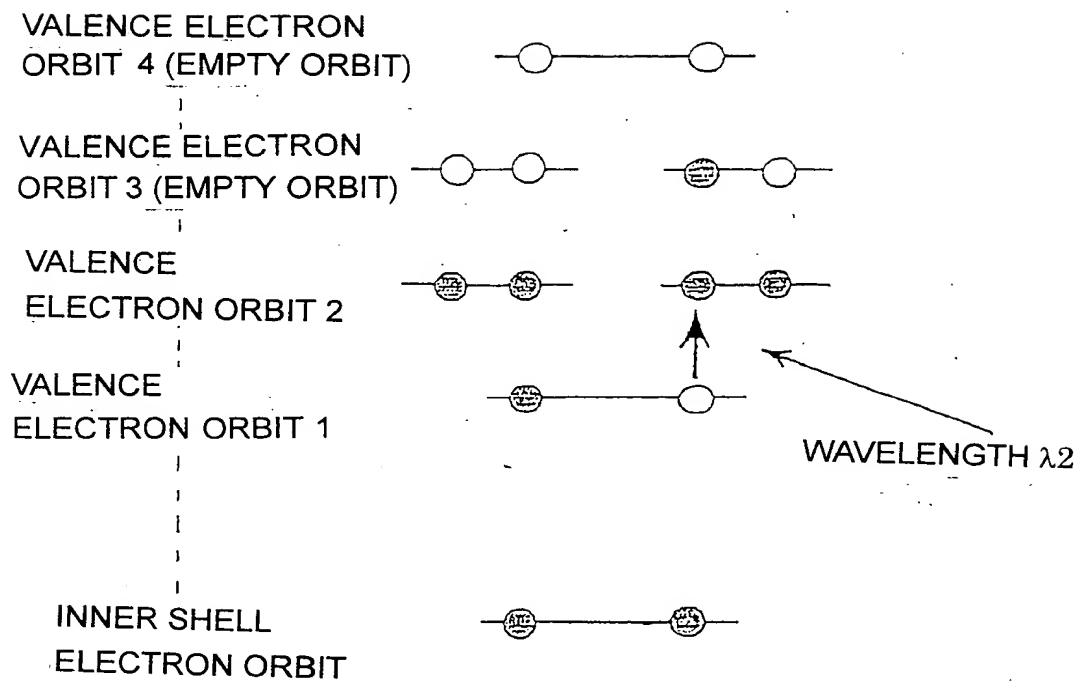


F I G . 2



F I G . 3

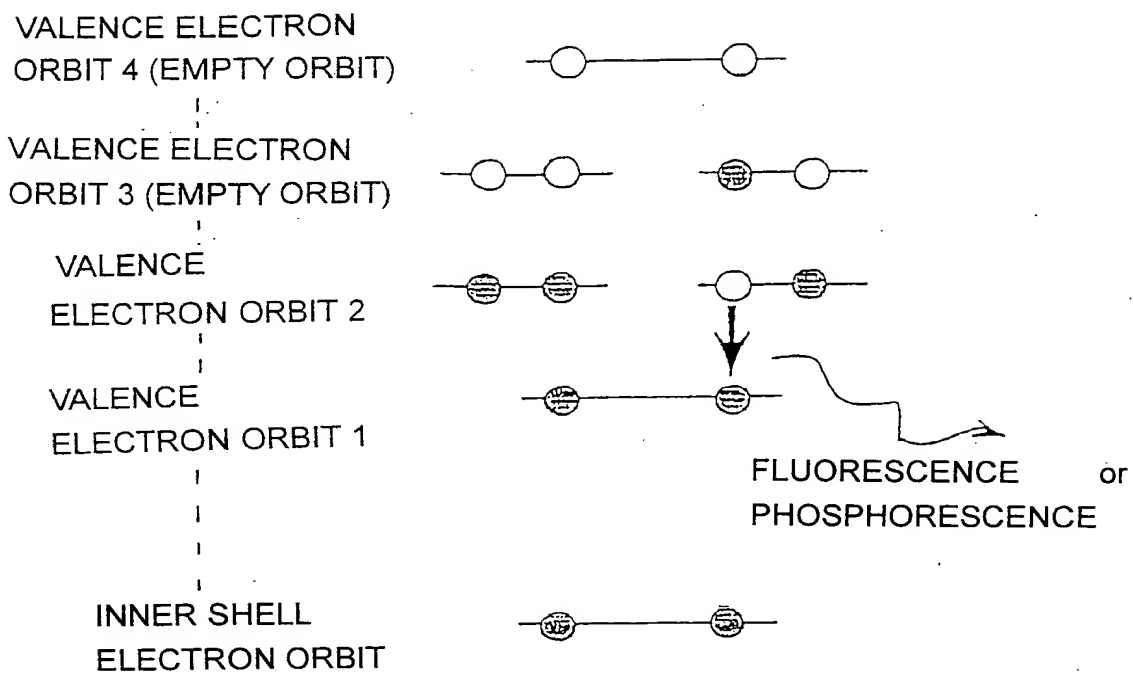
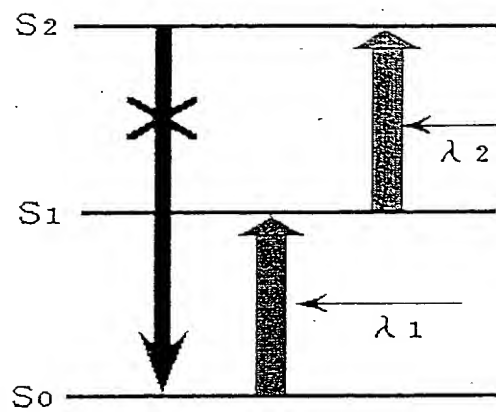
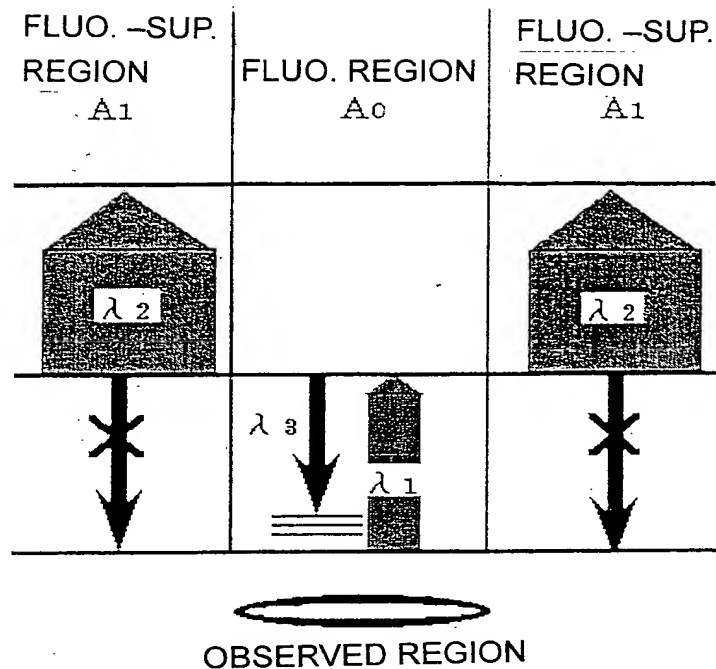


FIG. 4



F I G . 5



F I G. 6

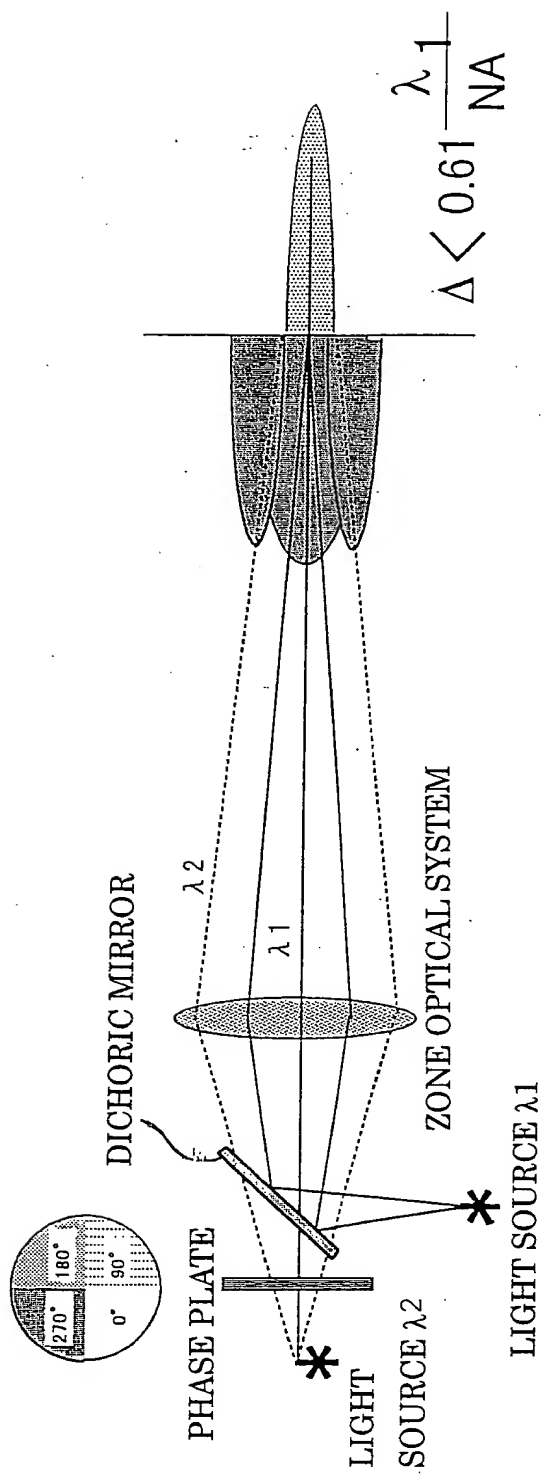


FIG. 7

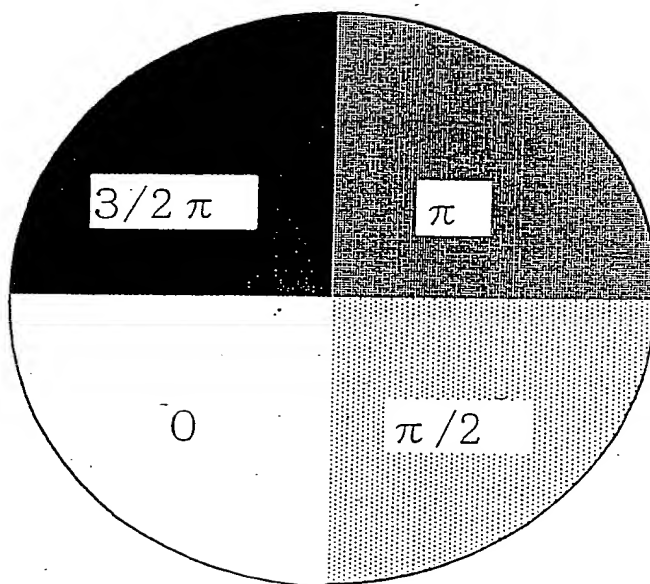


FIG. 8

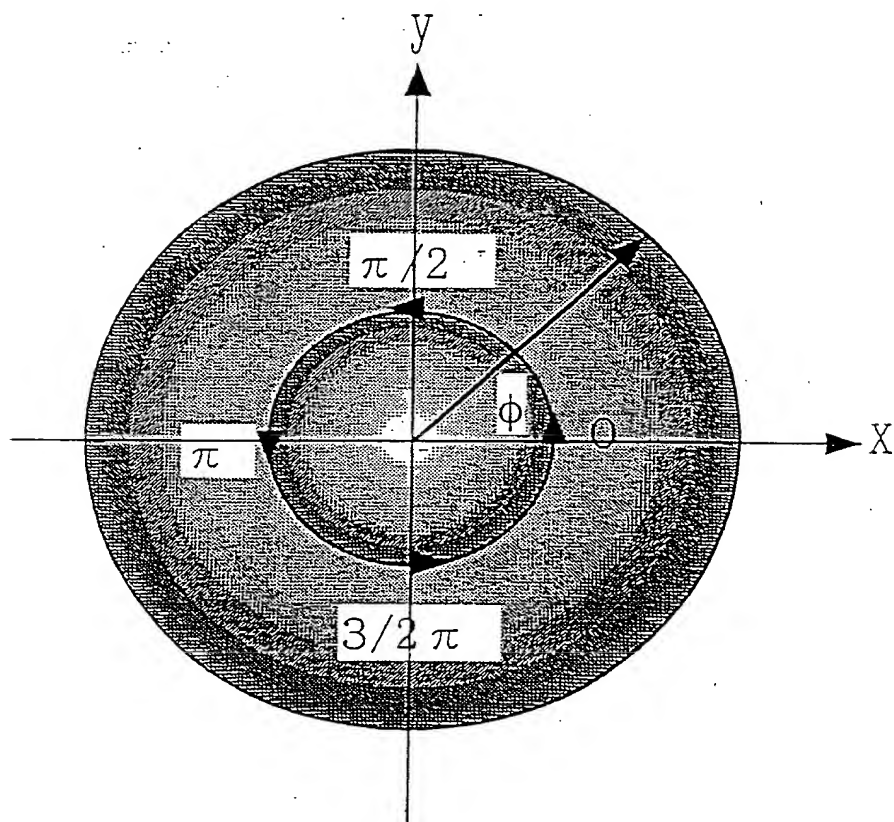


FIG. 9

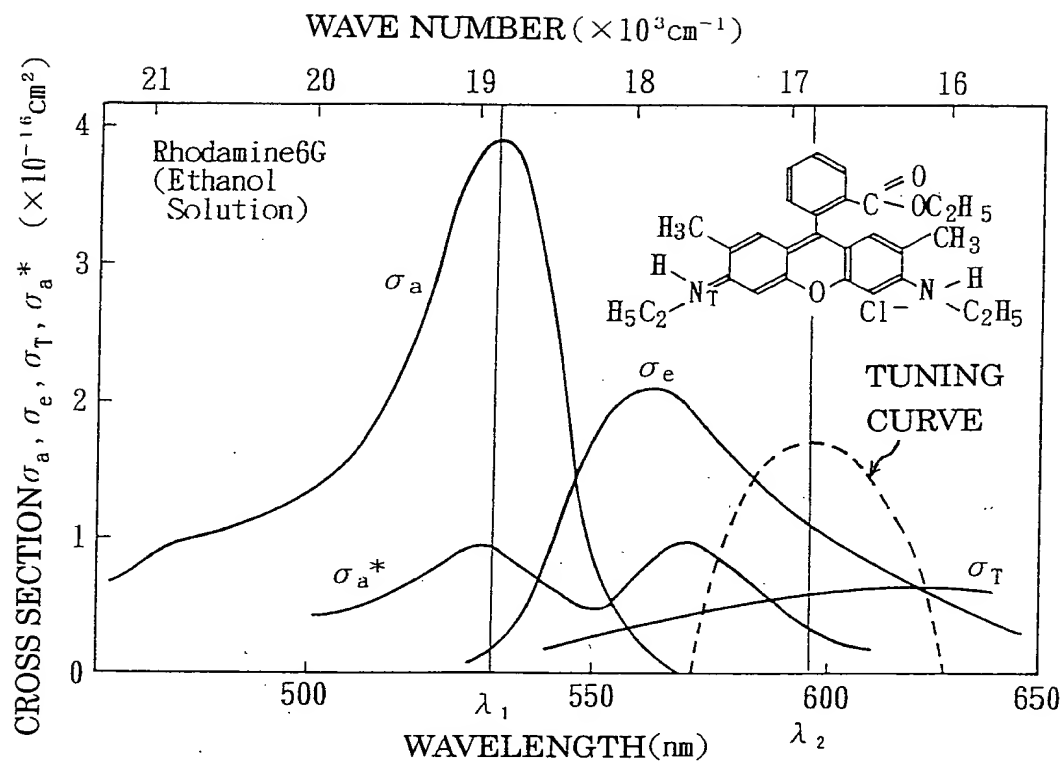


FIG. 10

ERASE LIGHT
(INCIDENT BEAM)

1101

1102

1103

1104

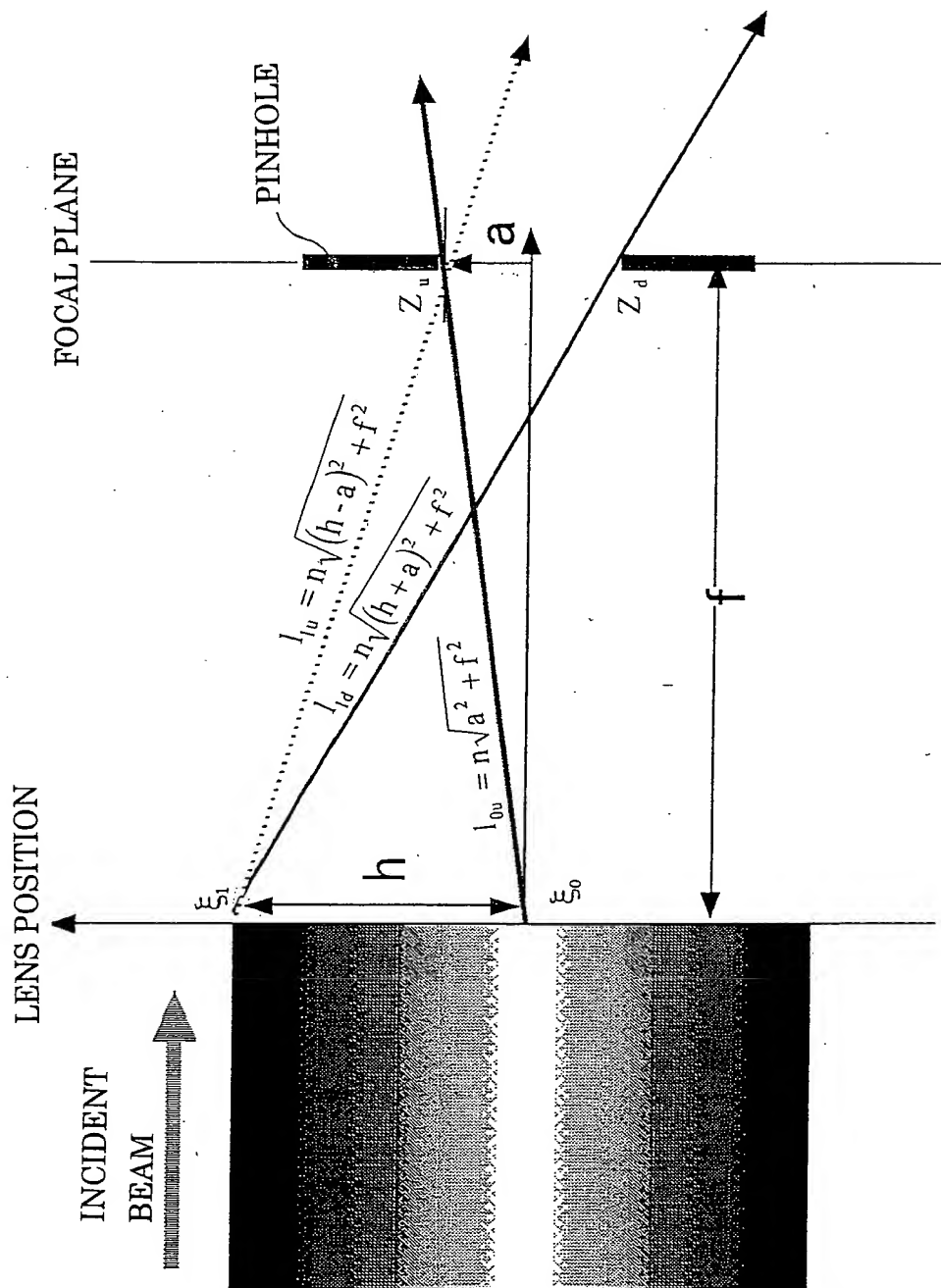


FIG. 12

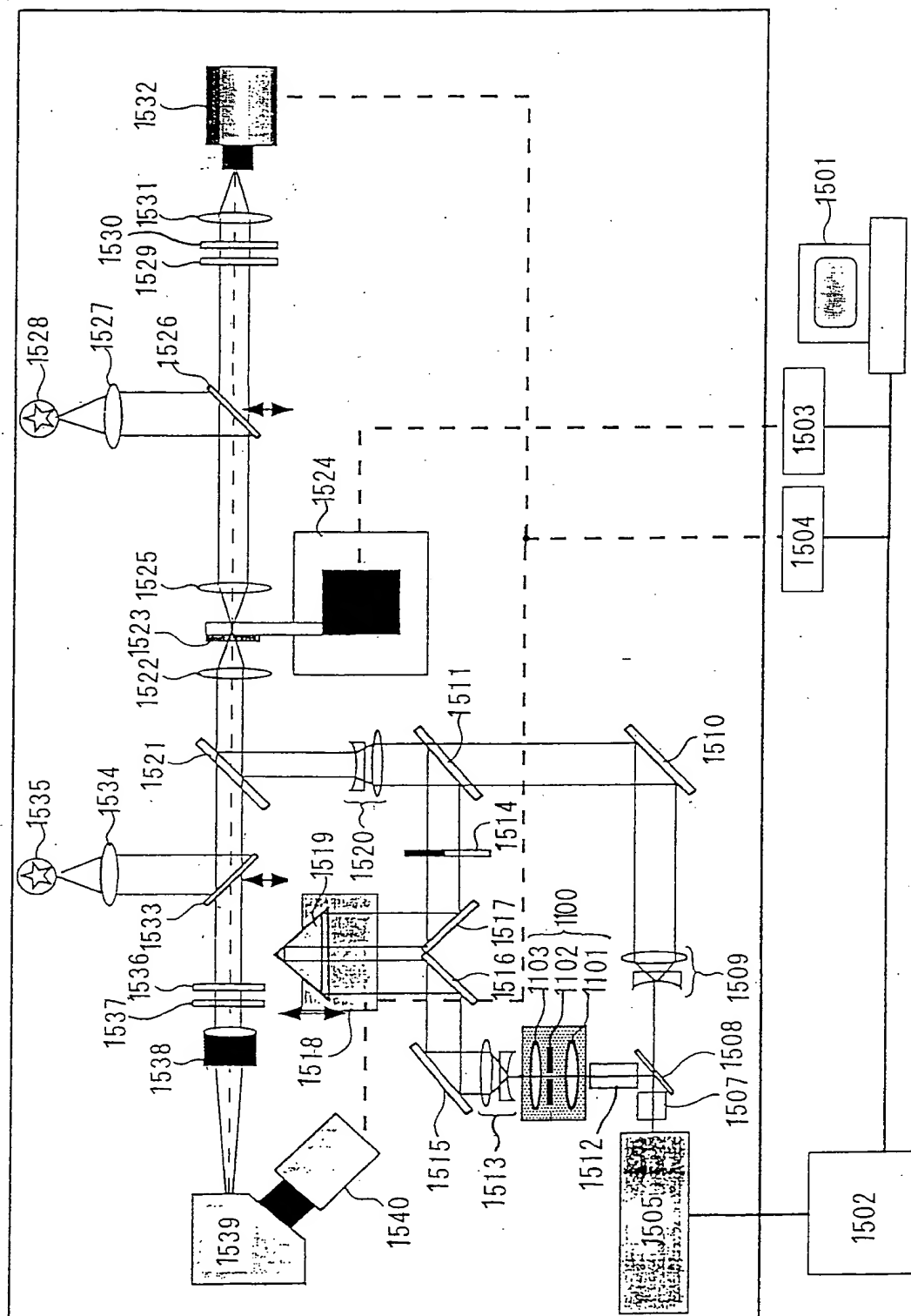
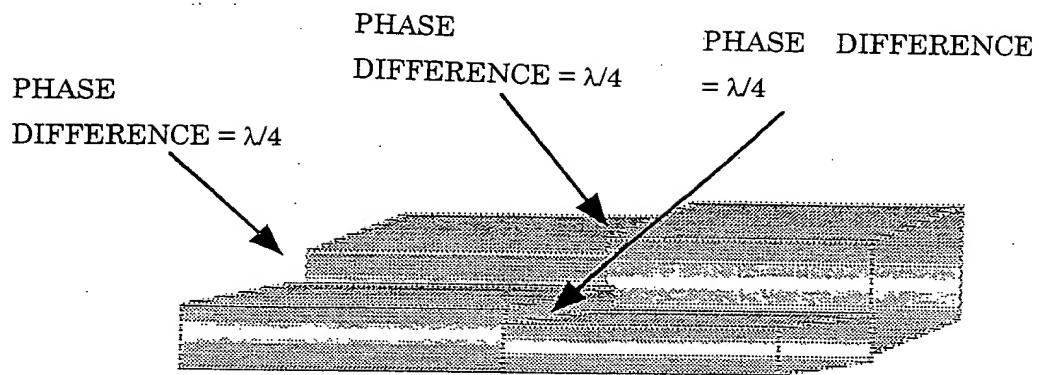


FIG. 13



F I G . 1 4

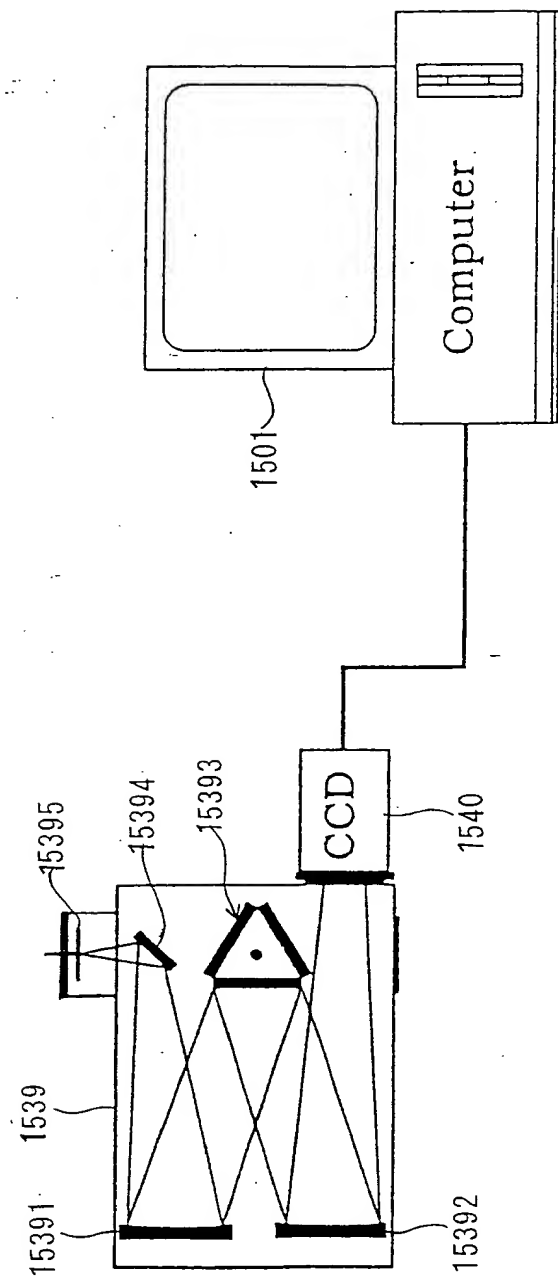


FIG. 15

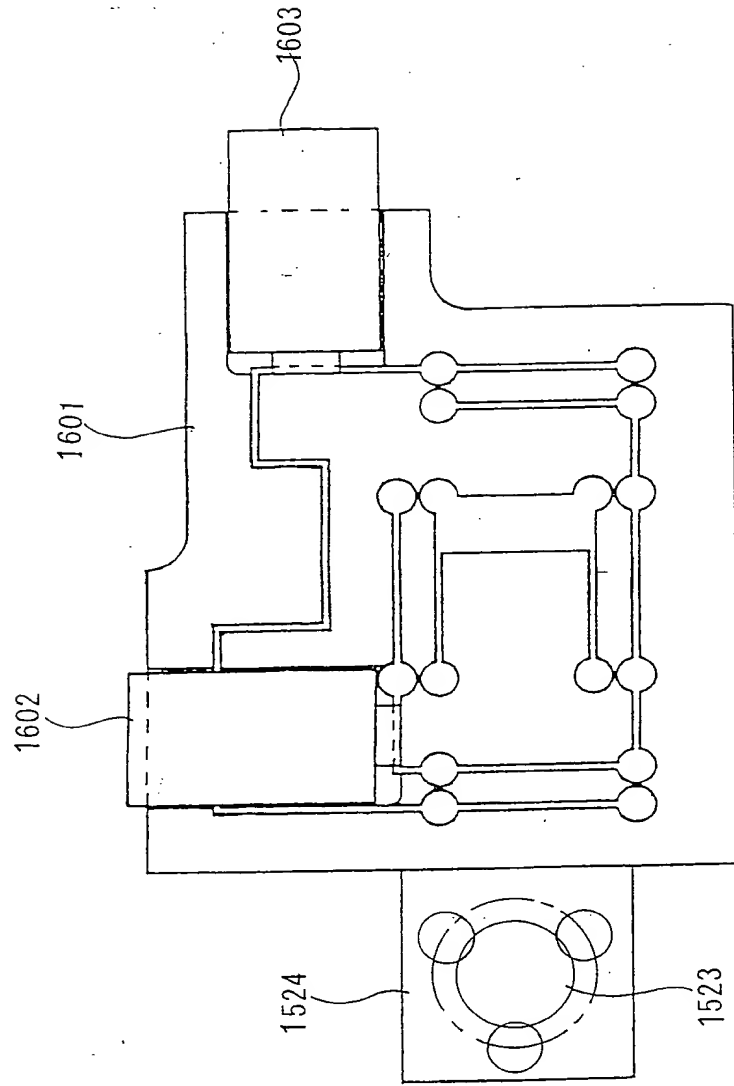


FIG. 16

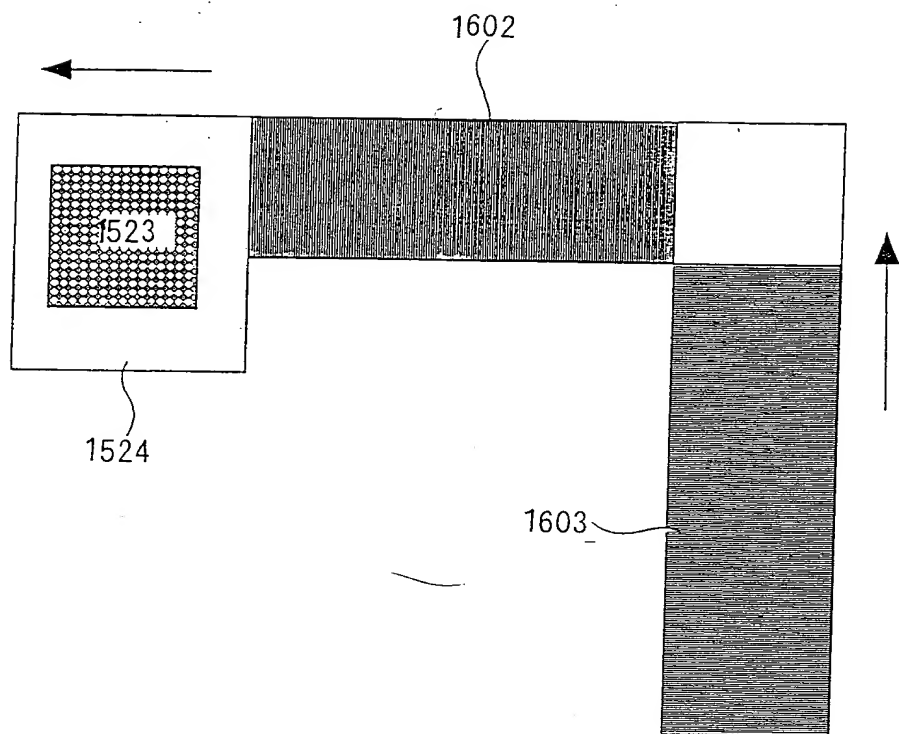


FIG. 17

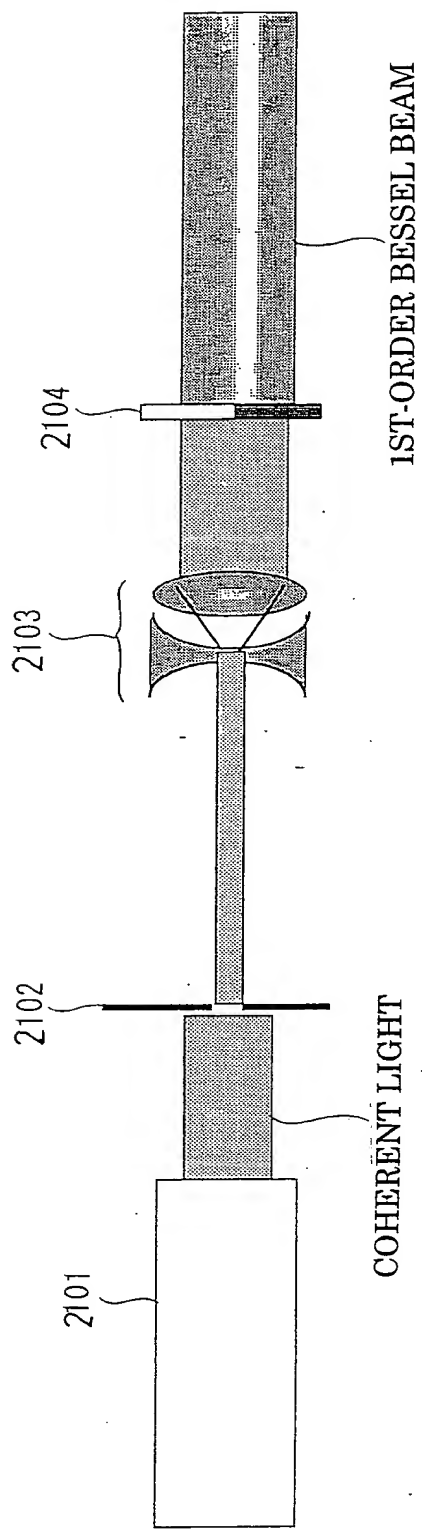


FIG. 18

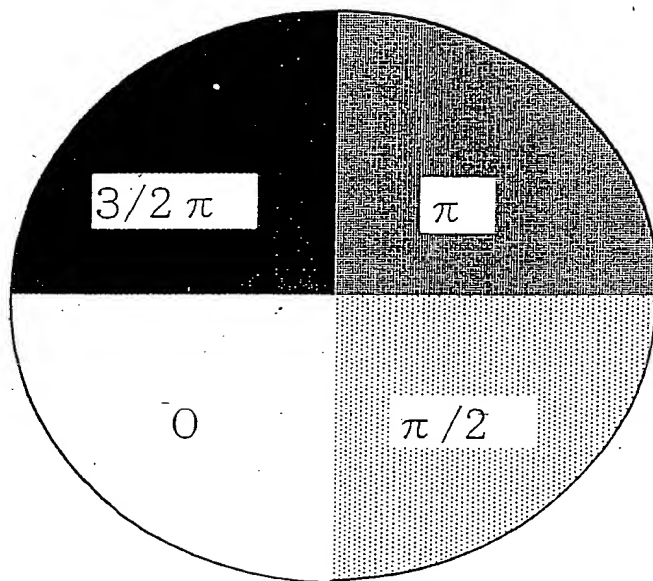


FIG. 19

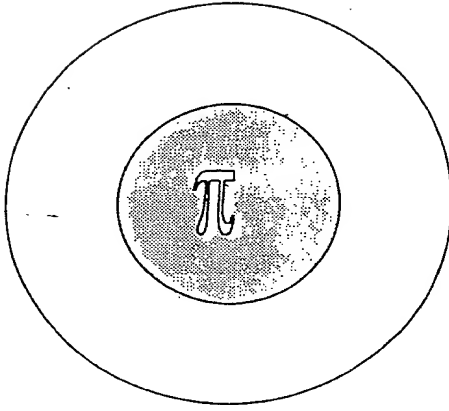


FIG. 20

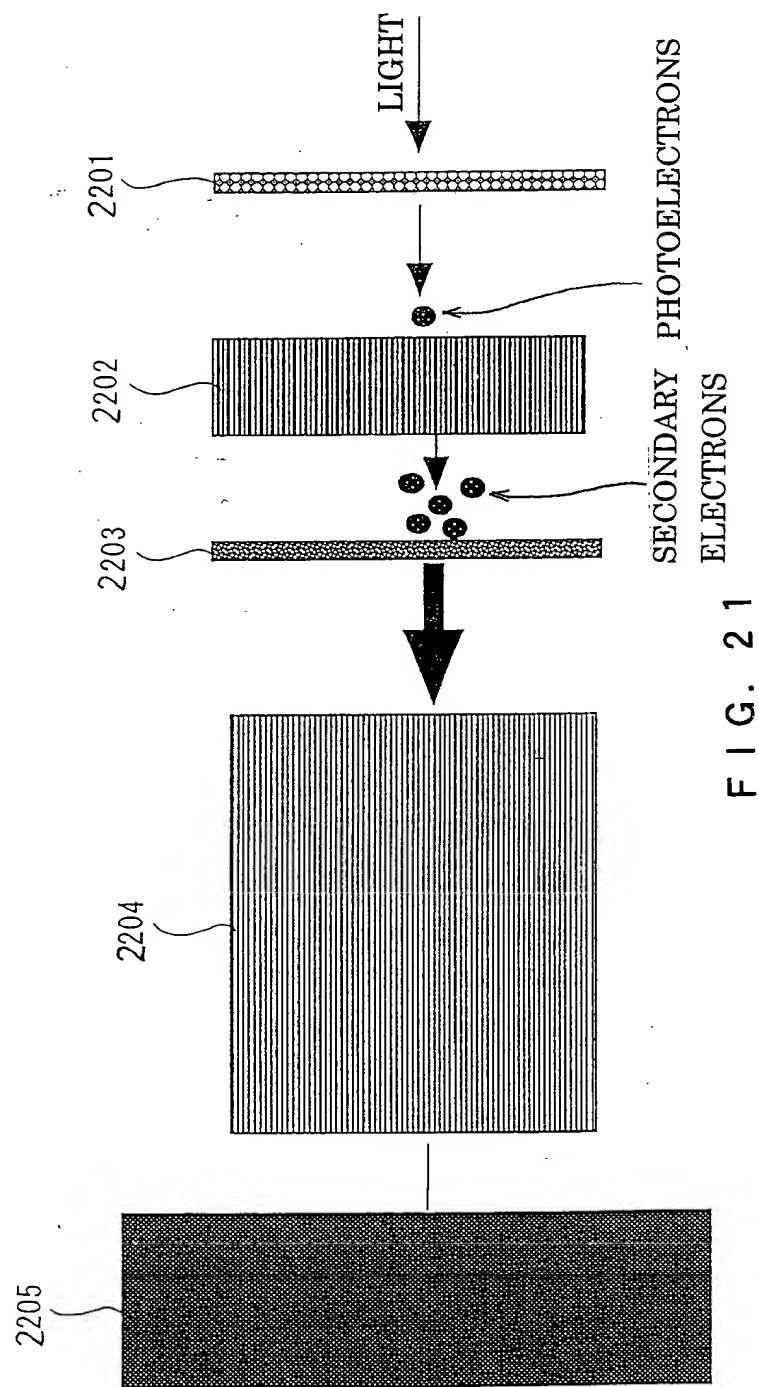


FIG. 21

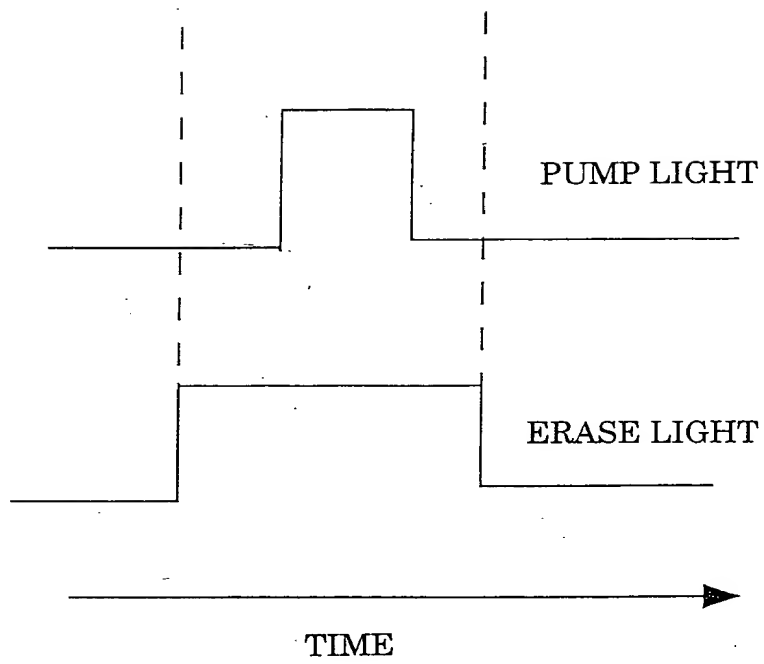


FIG. 22

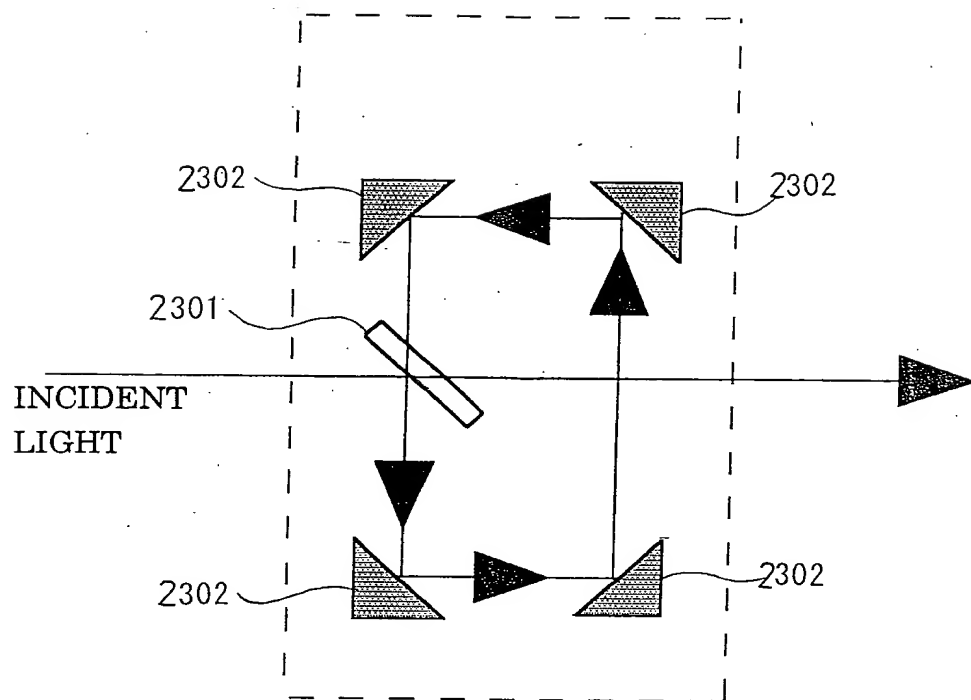


FIG. 23

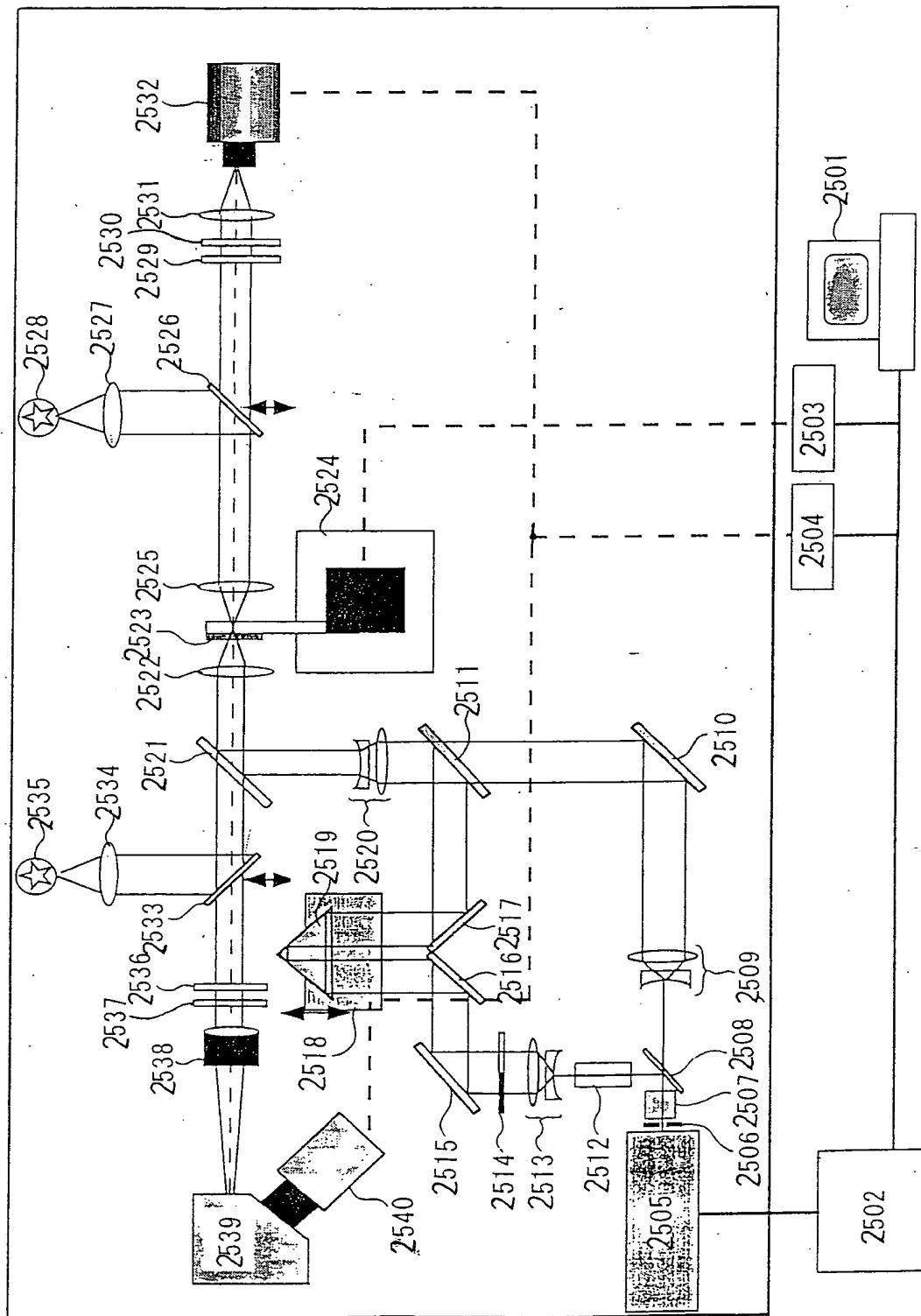
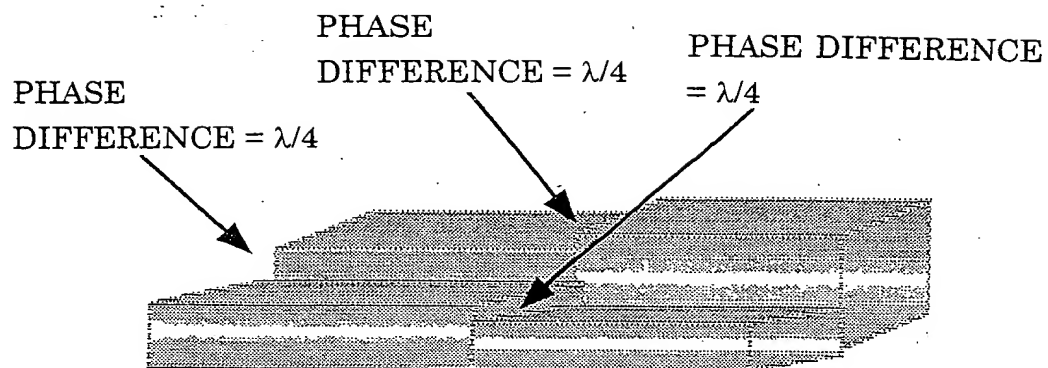


FIG. 24



F I G . 2 5

FIG. 26

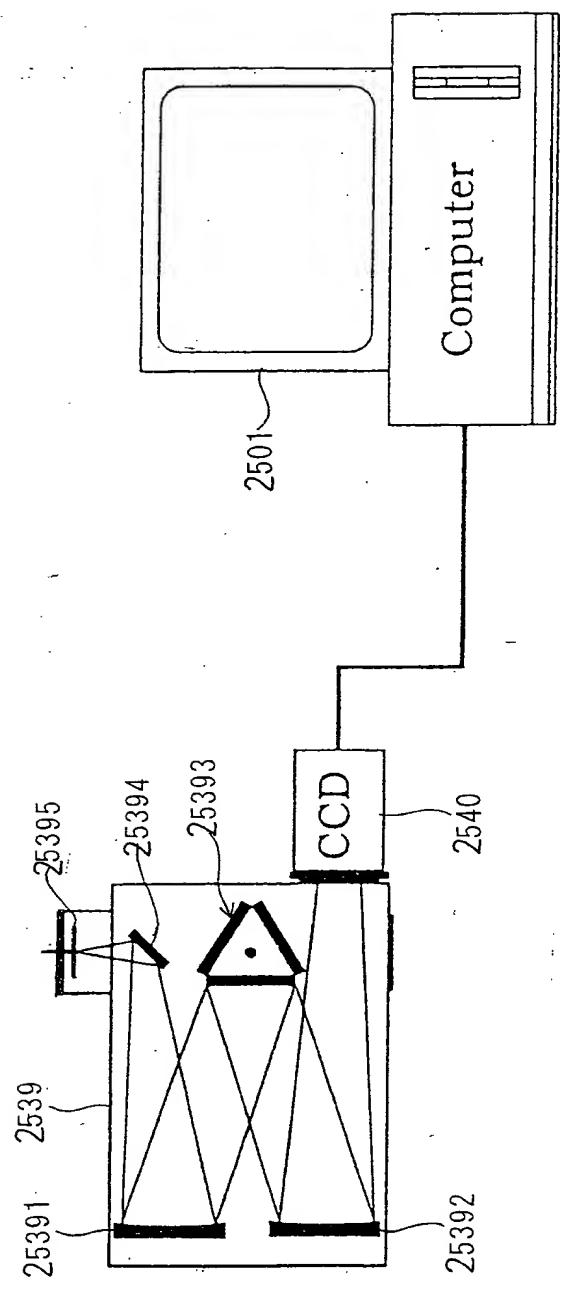


FIG. 26

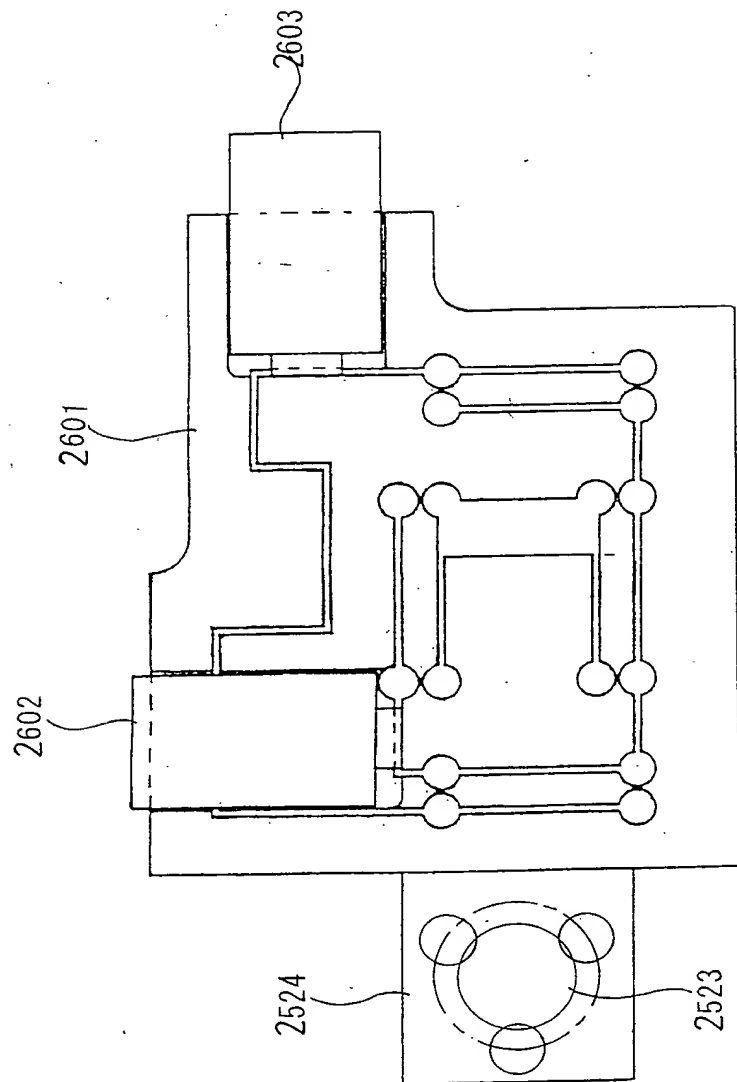


FIG. 27

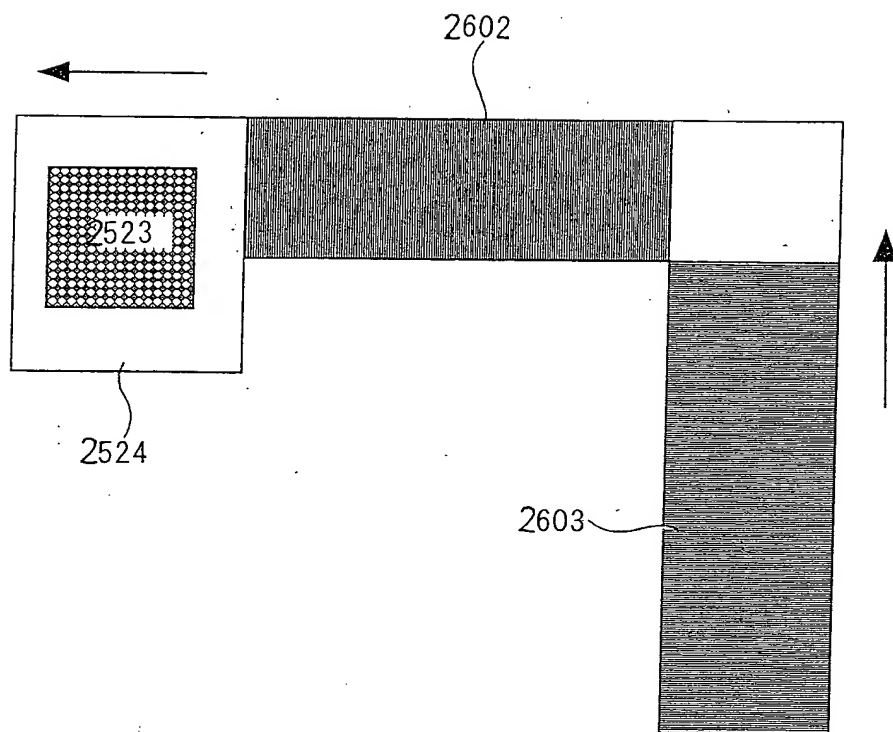


FIG. 28

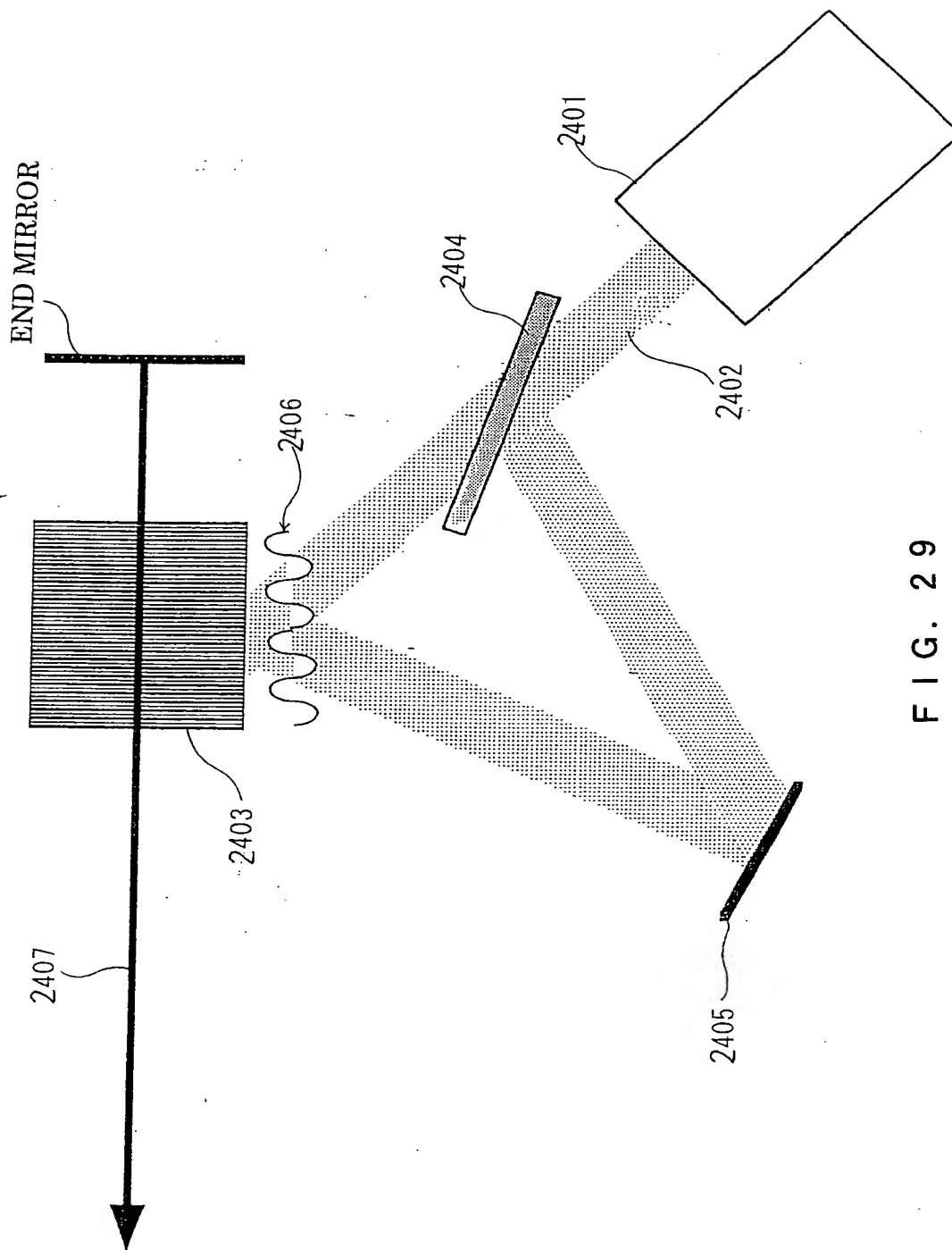


FIG. 29

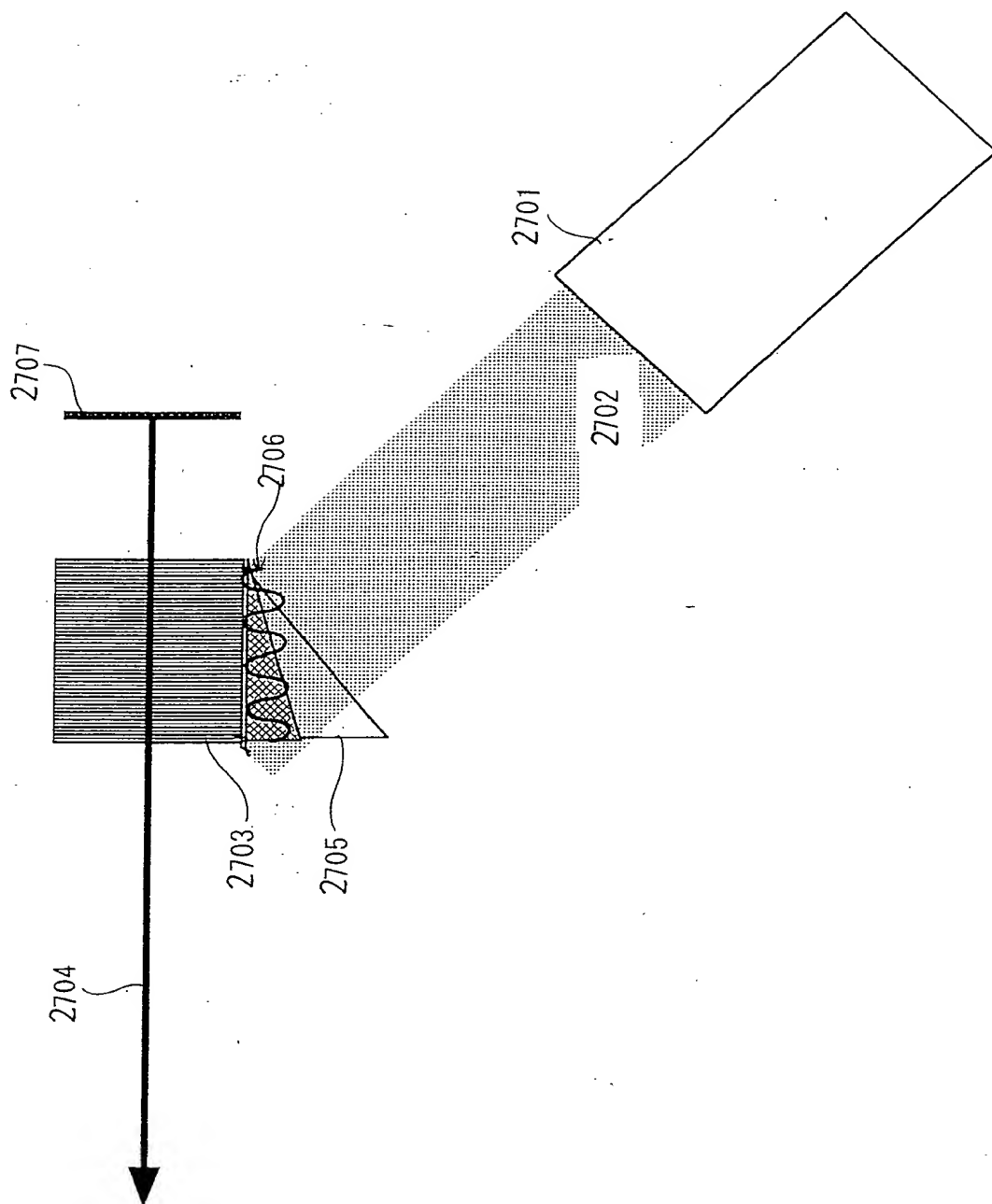


FIG. 30

FIG. 31 is a perspective view of a system 2700 for measuring a property of a material 2708. The system 2700 includes a half mirror 2702, a cube 2703, and a detector 2708. A light source 2701 emits a beam of light 2704 that is split by the half mirror 2702 into a reflected beam 2705 and a transmitted beam 2706. The reflected beam 2705 passes through the cube 2703 and is detected by the detector 2708. The transmitted beam 2706 passes through the cube 2703 and is detected by the detector 2708.

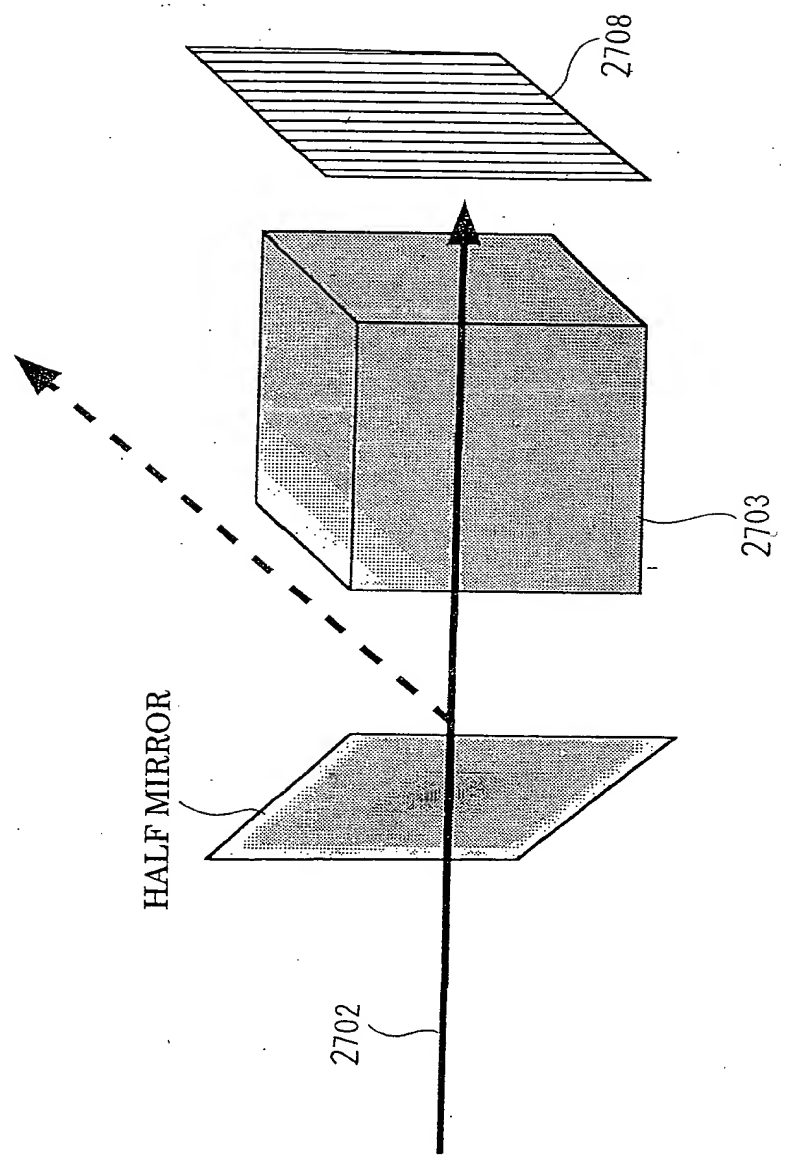
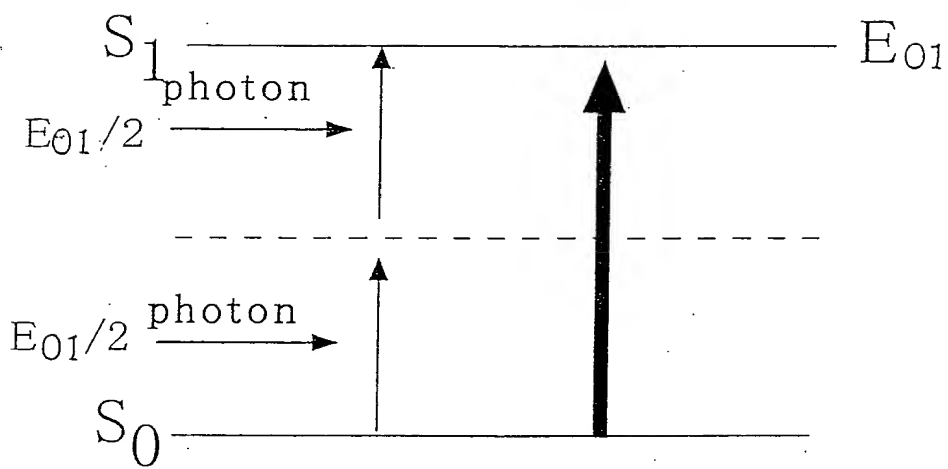


FIG. 31



F I G . 3 2

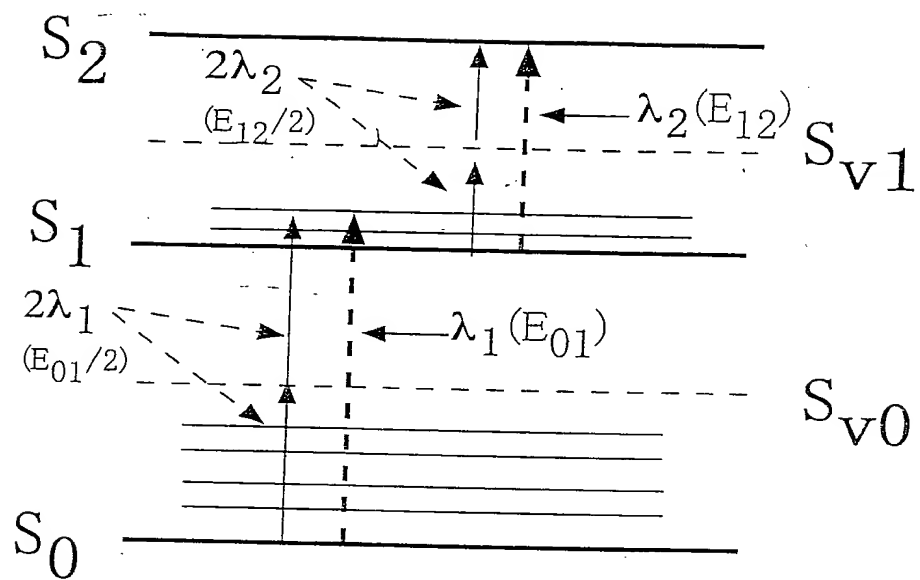


FIG. 33

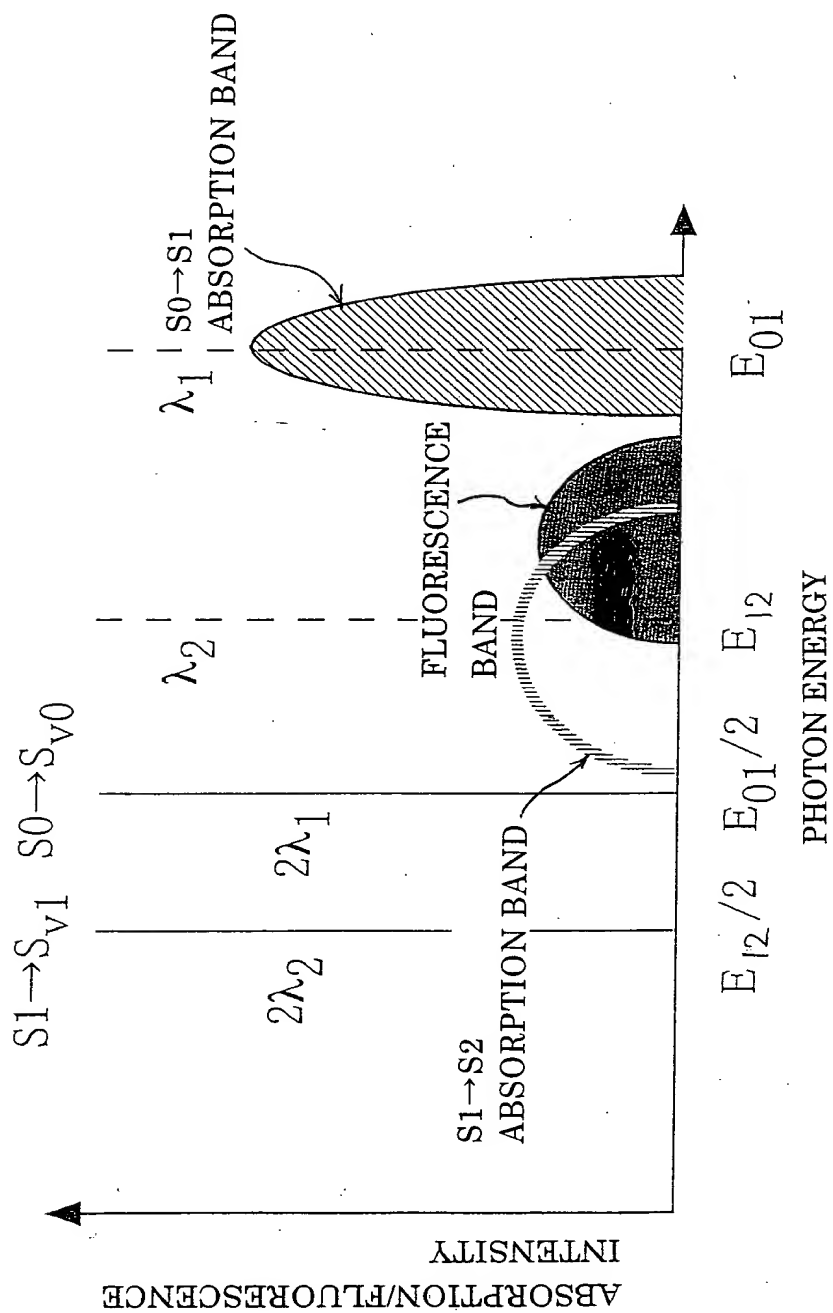
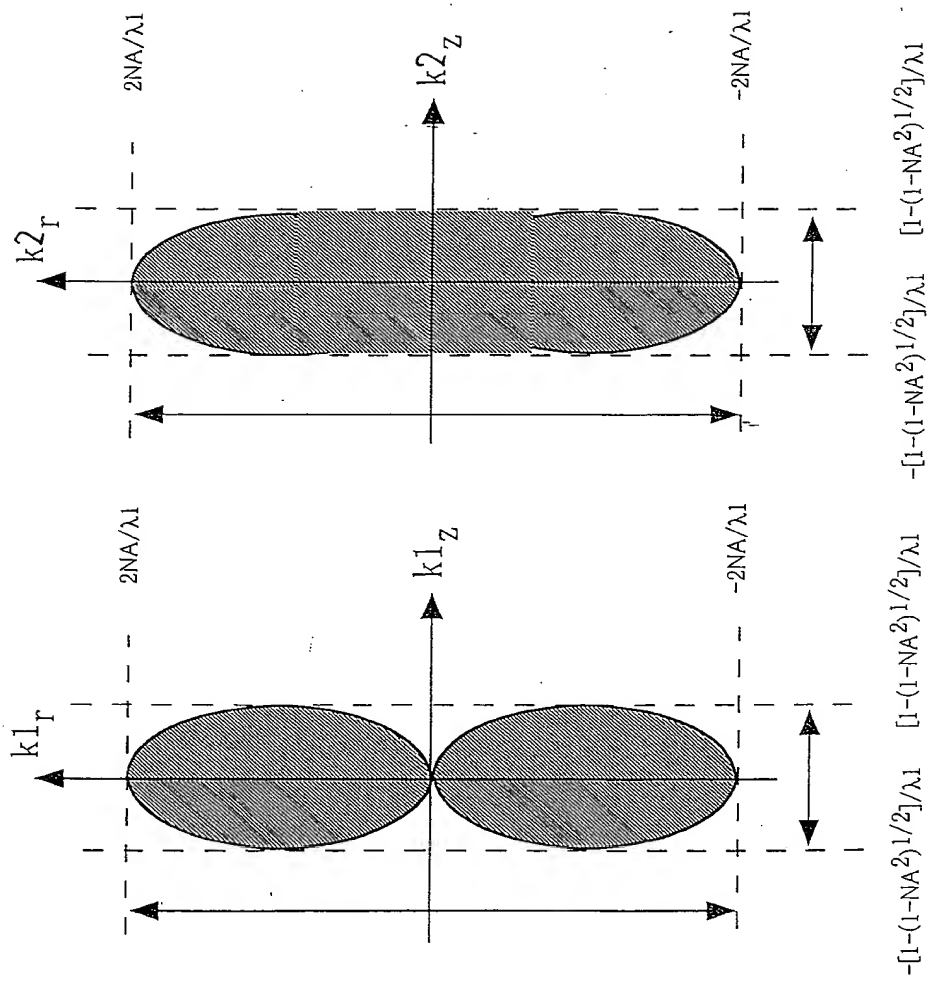


FIG. 34



(a) 1-PHOTON EXCITATION PROCESS
(b) NON-RESONANCE 2-PHOTON EXCITATION PROCESS

FIG. 35

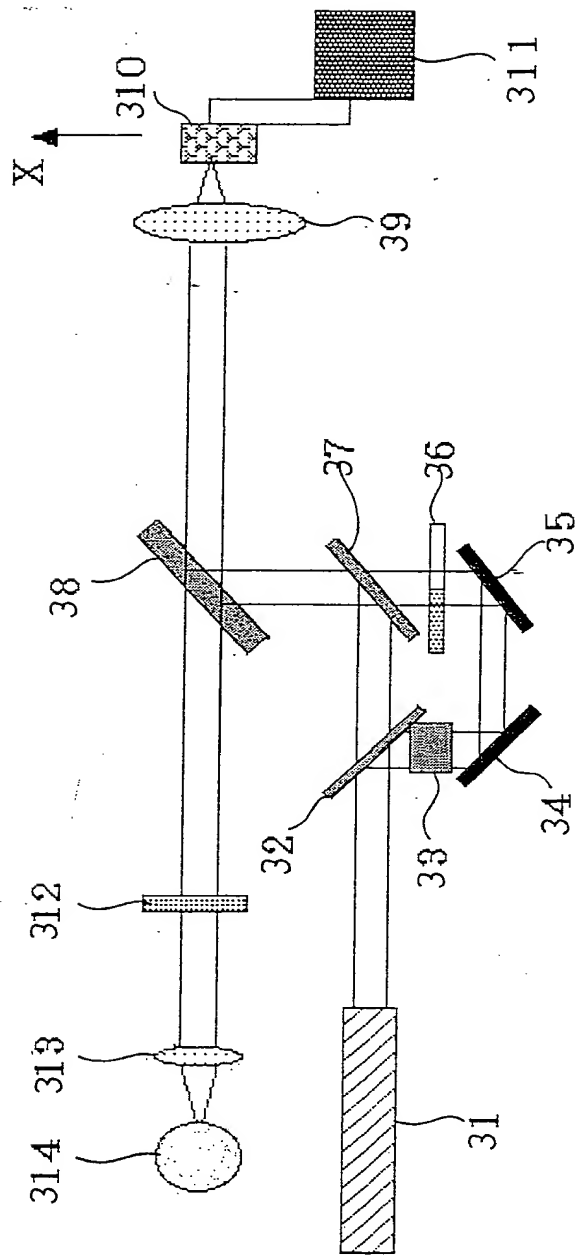


FIG. 36

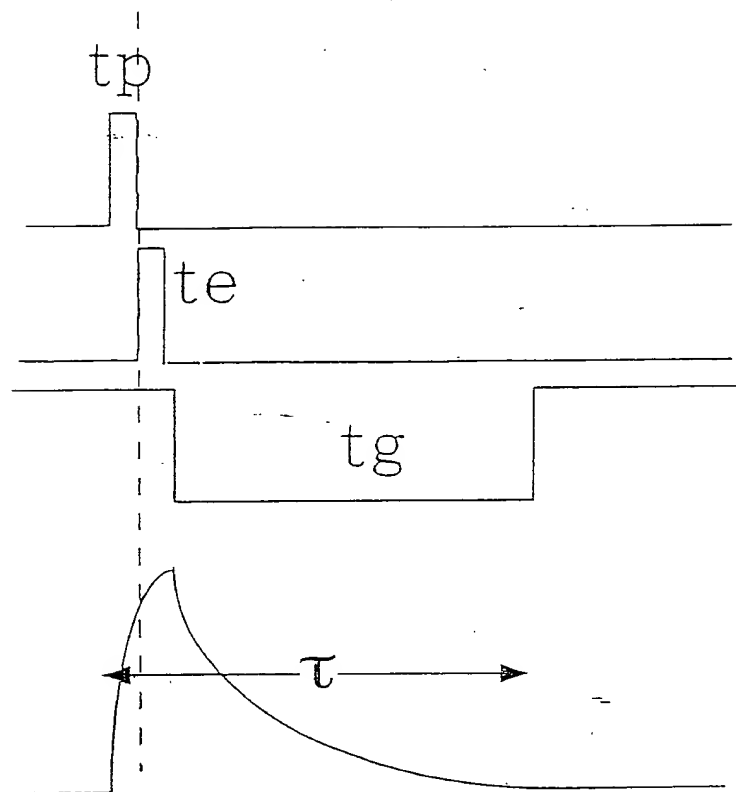


FIG. 37

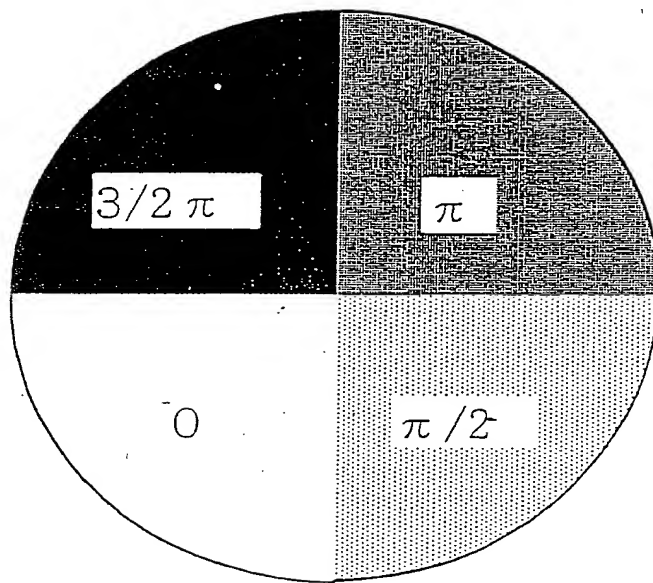


FIG. 38

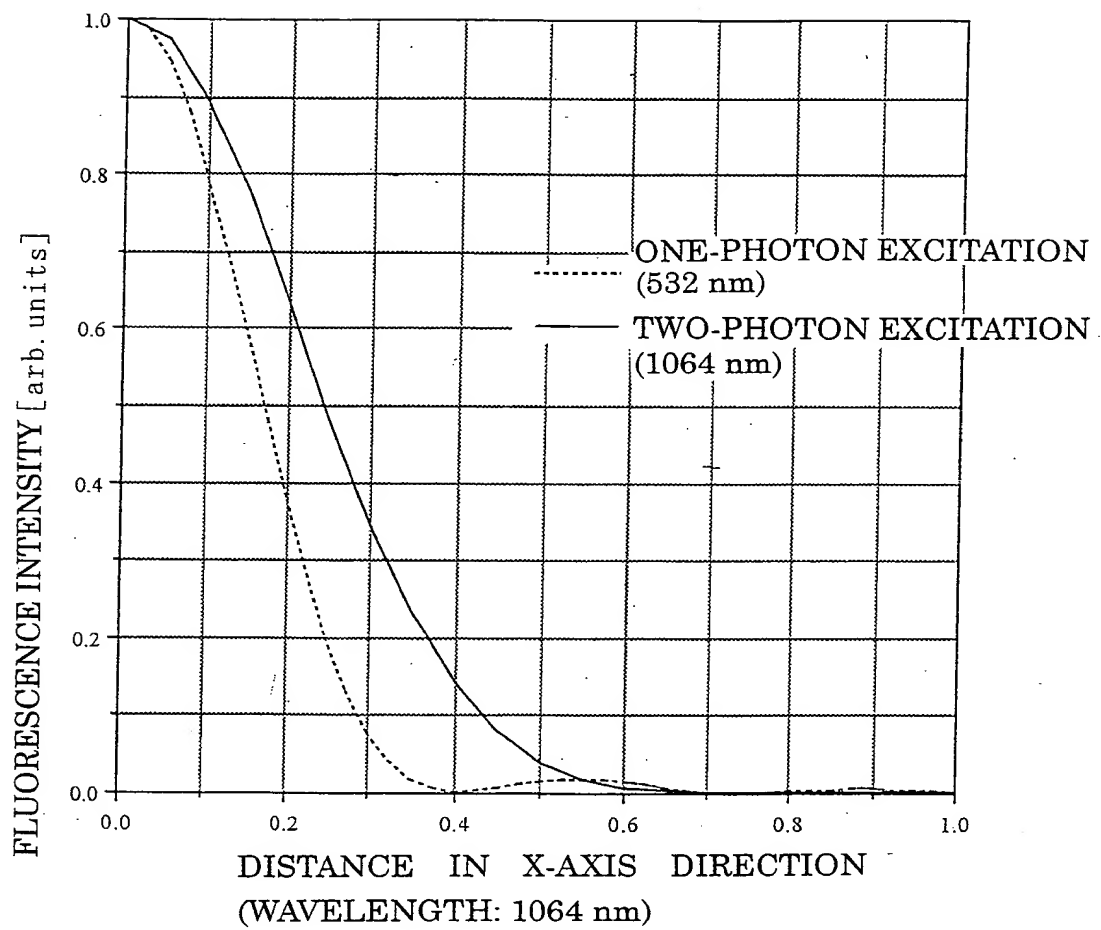


FIG. 39

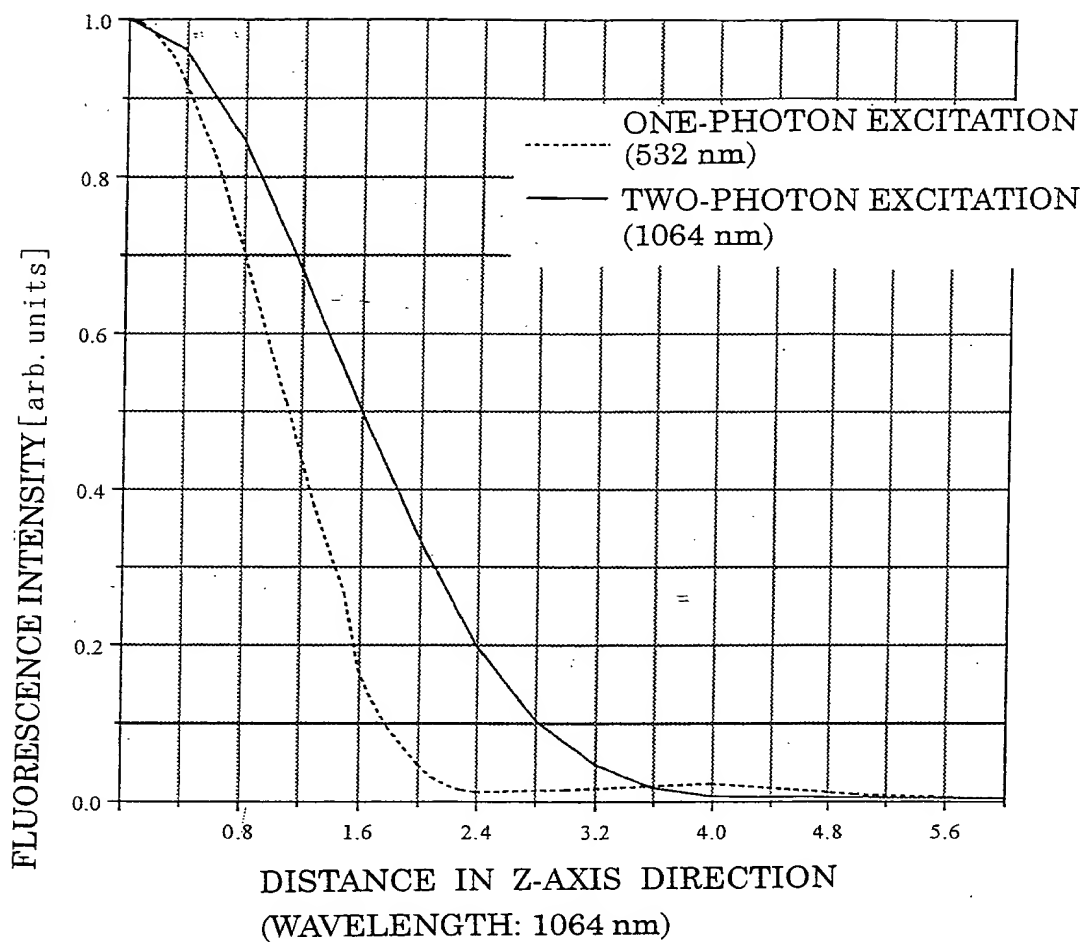


FIG. 40

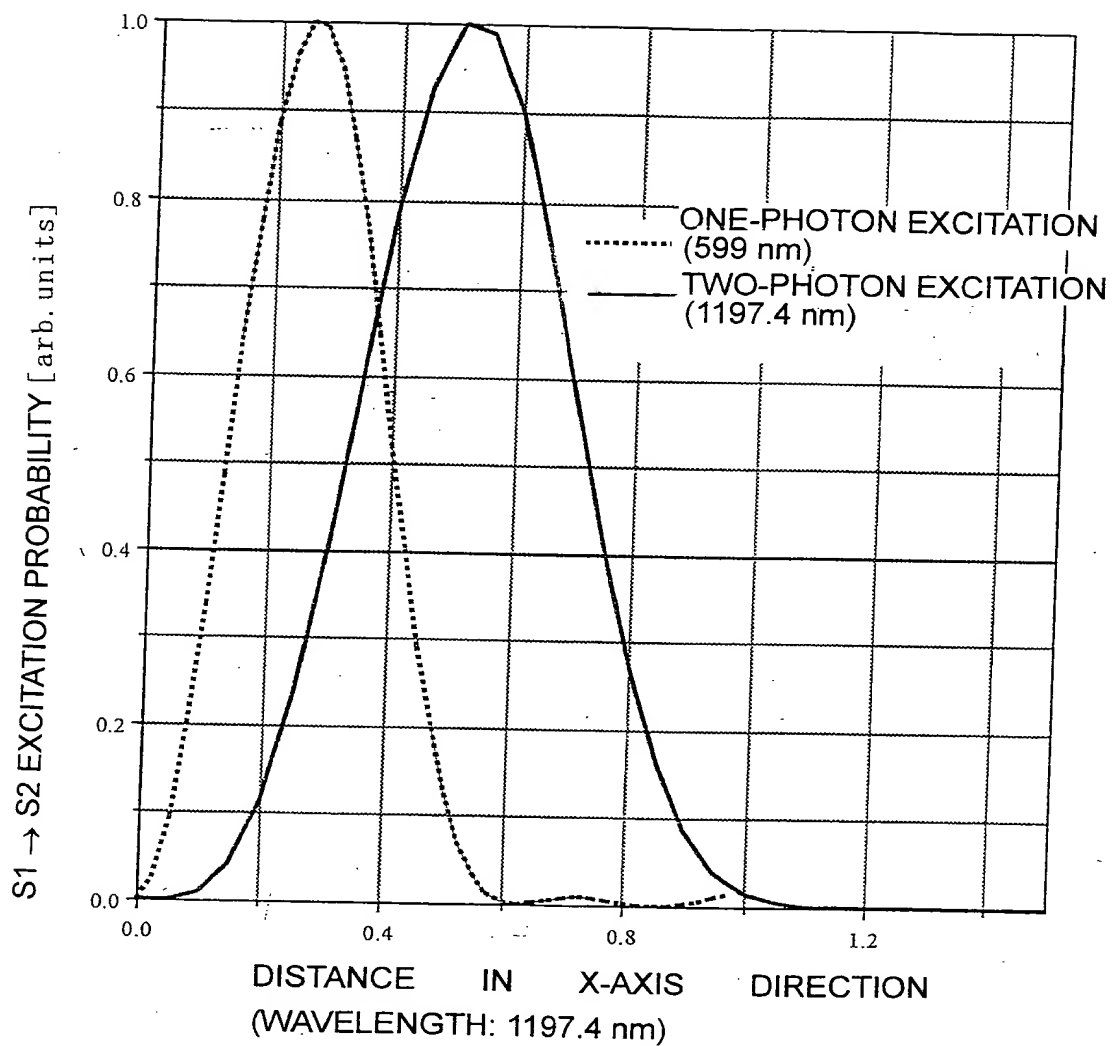
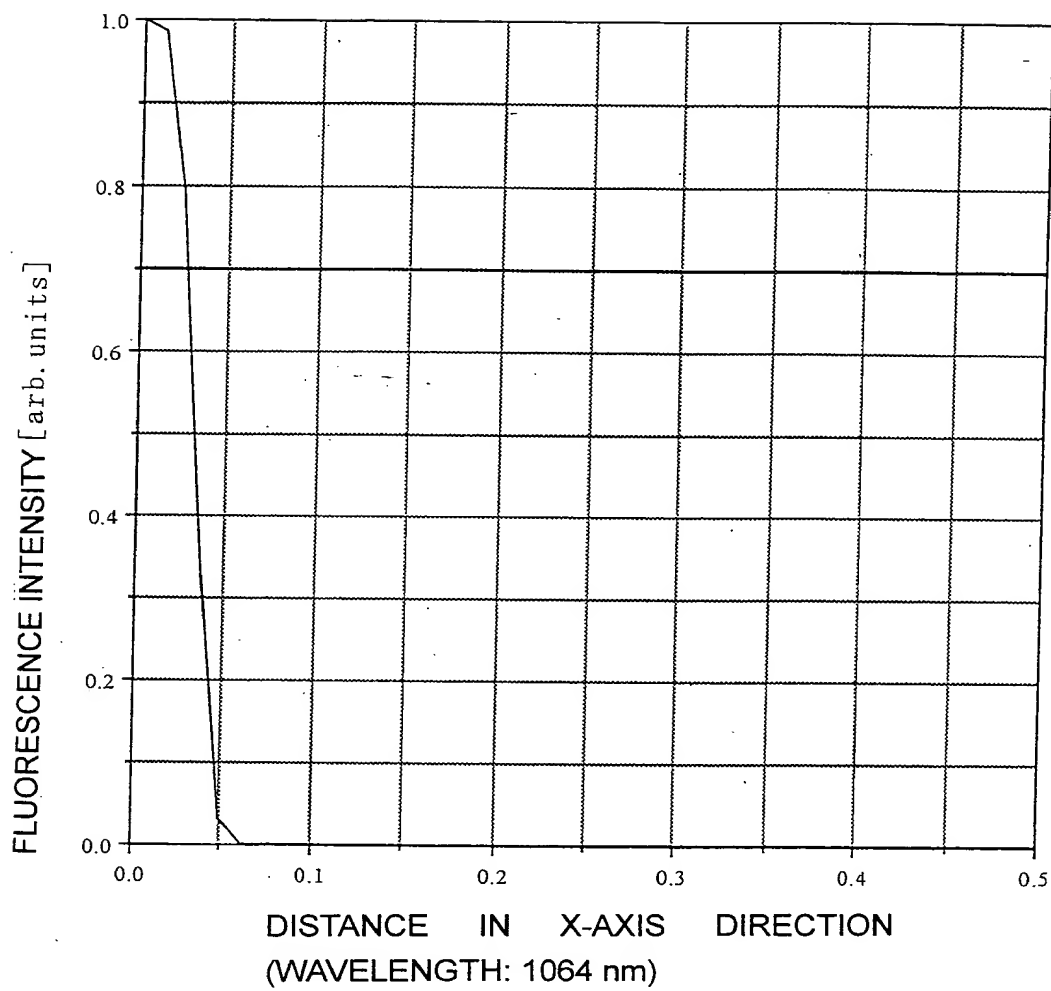


FIG. 41



F I G . 4 2

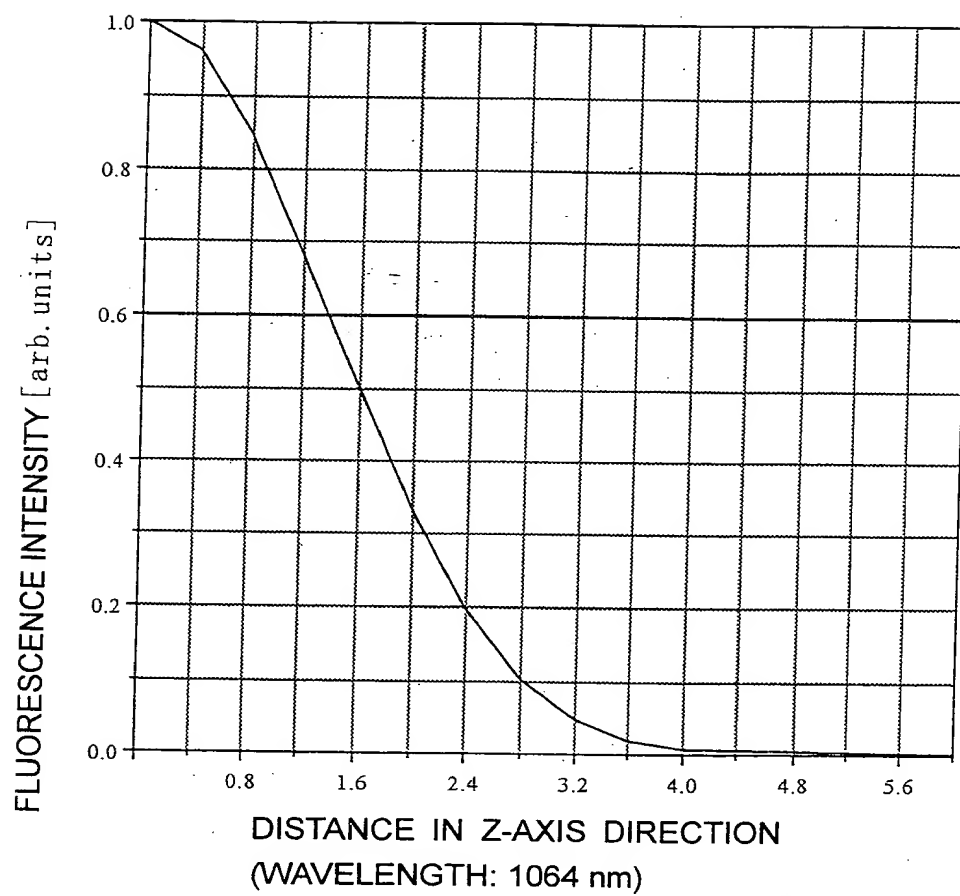


FIG. 43

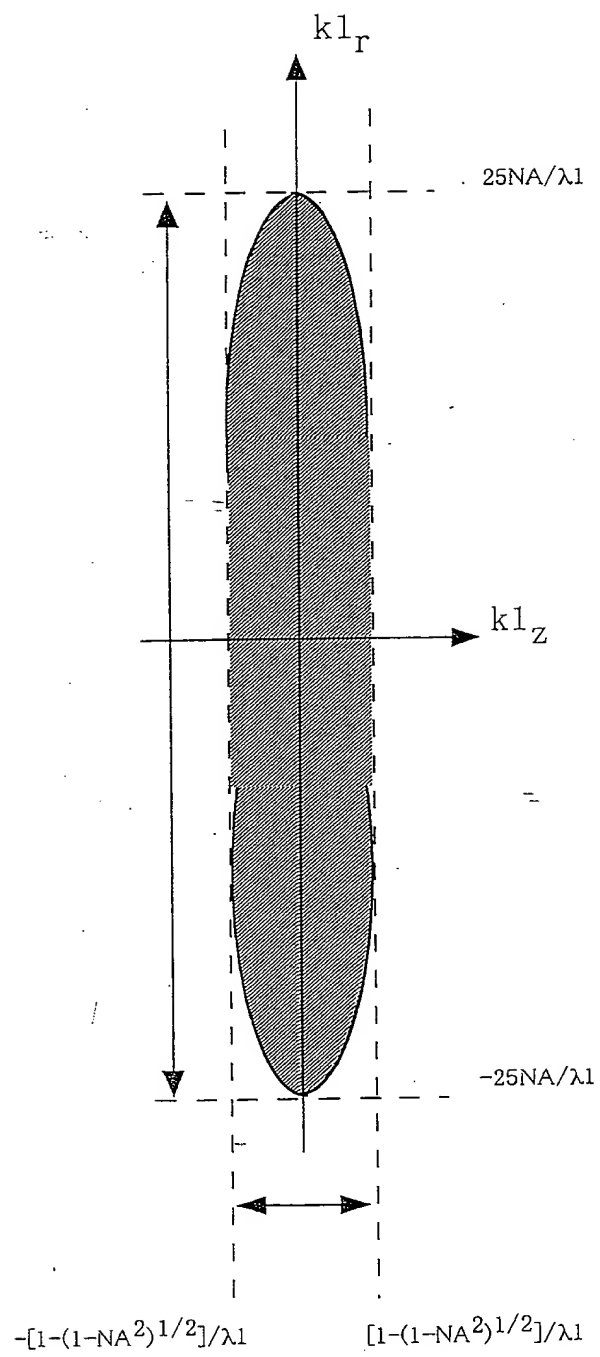


FIG. 44

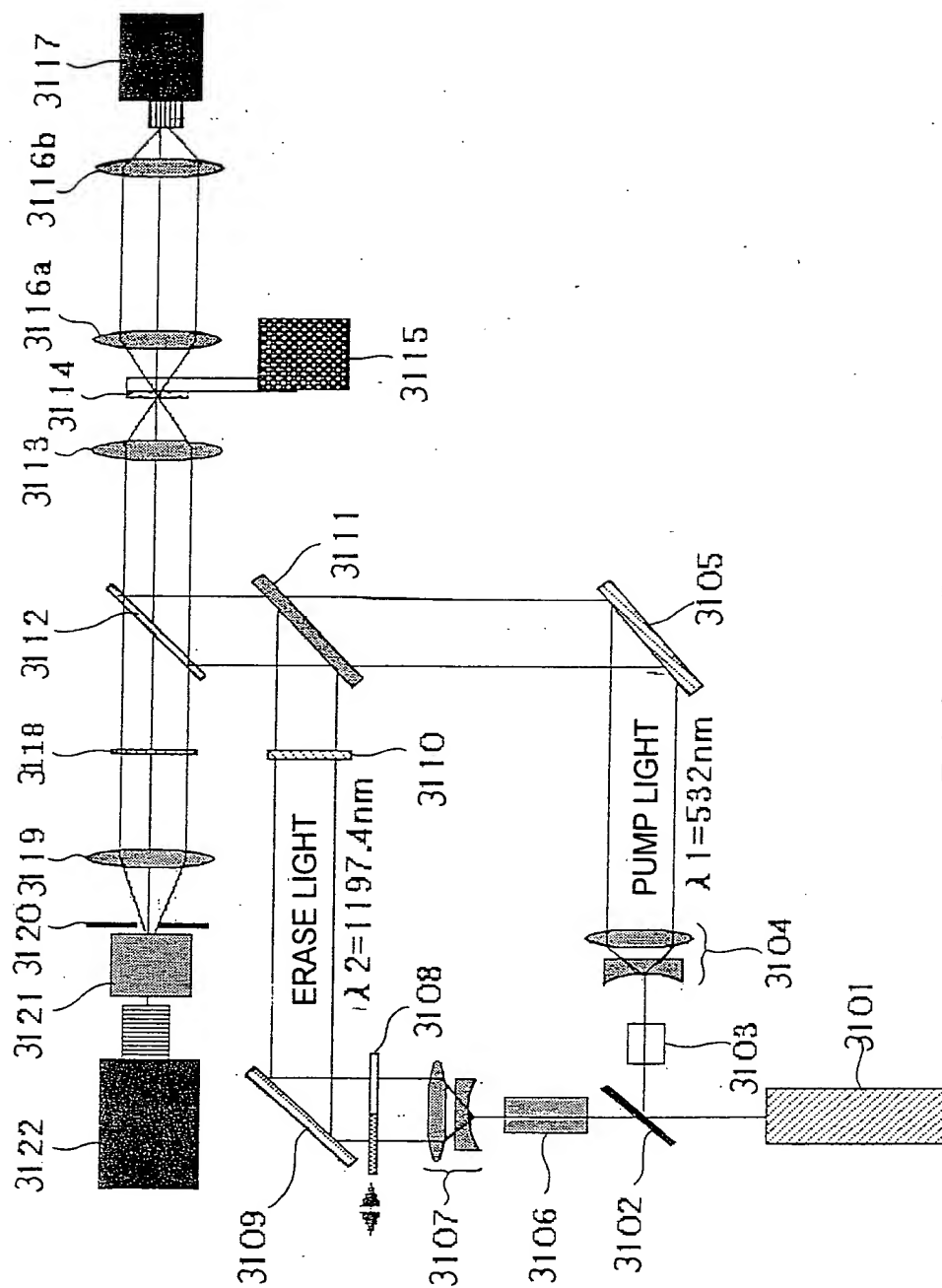


FIG. 45

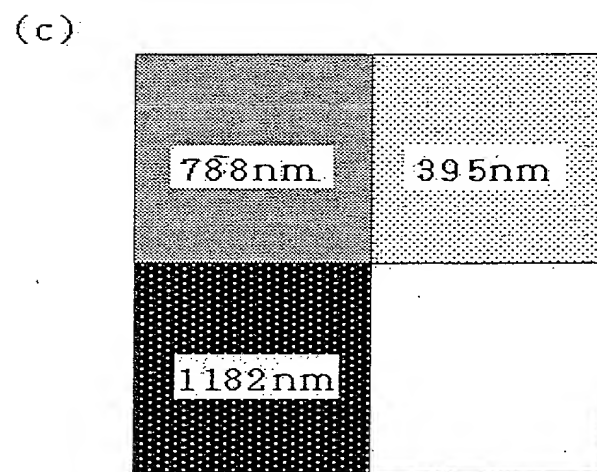
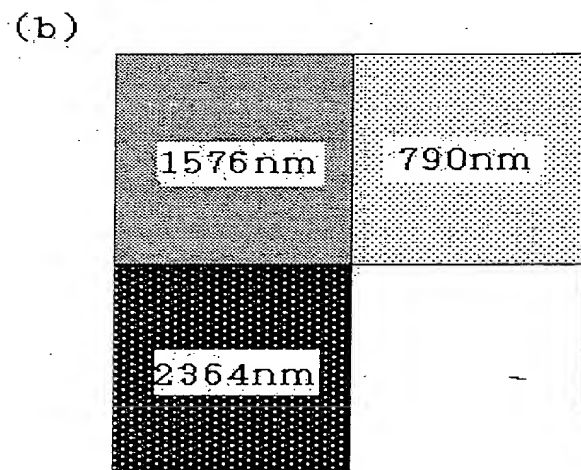
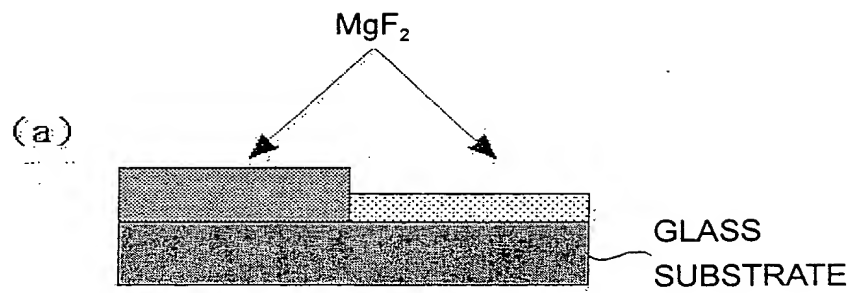


FIG. 46

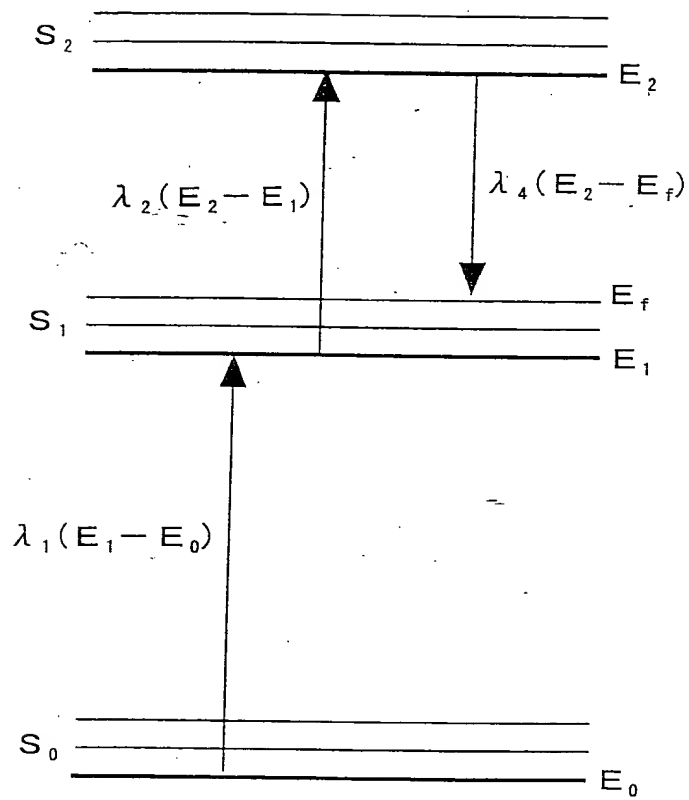


FIG. 47

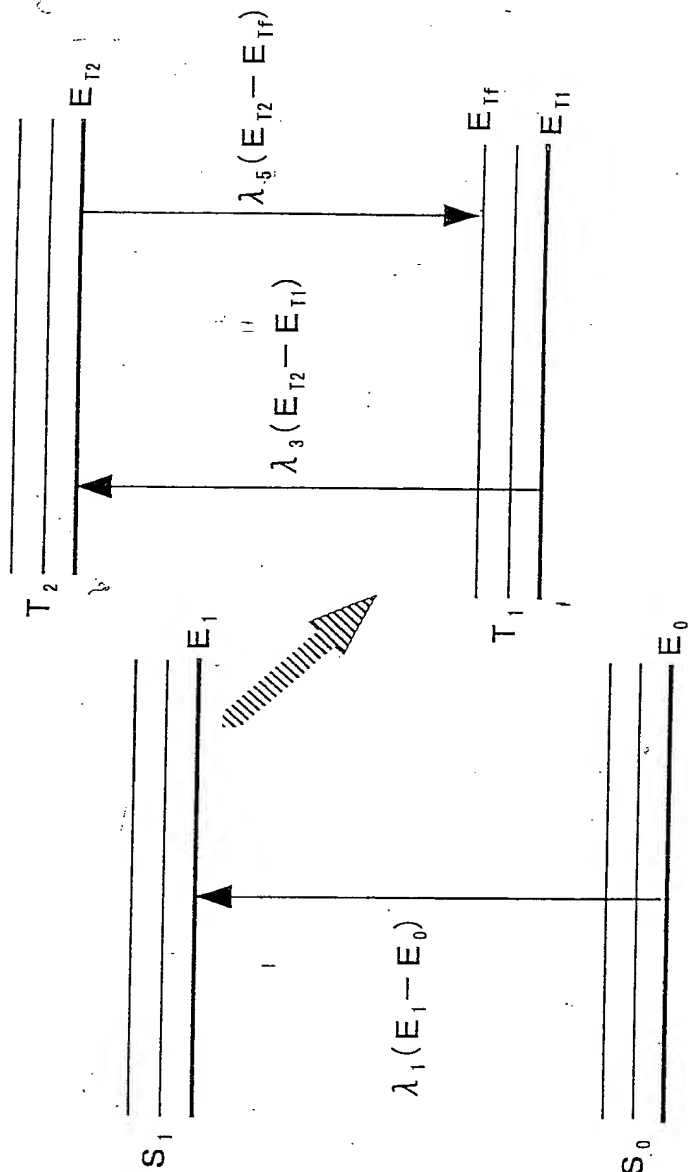
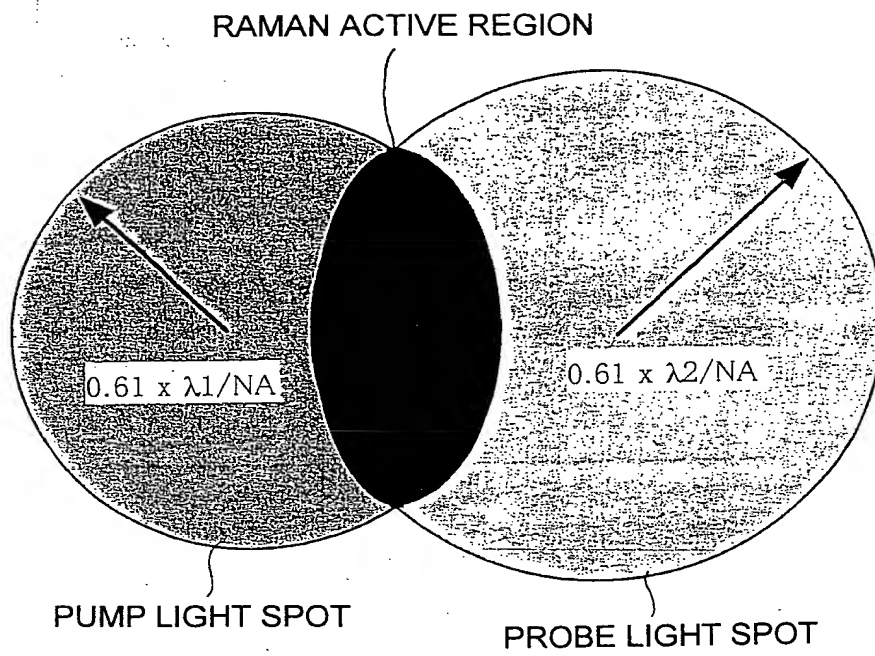


FIG. 48



F I G . 4 9

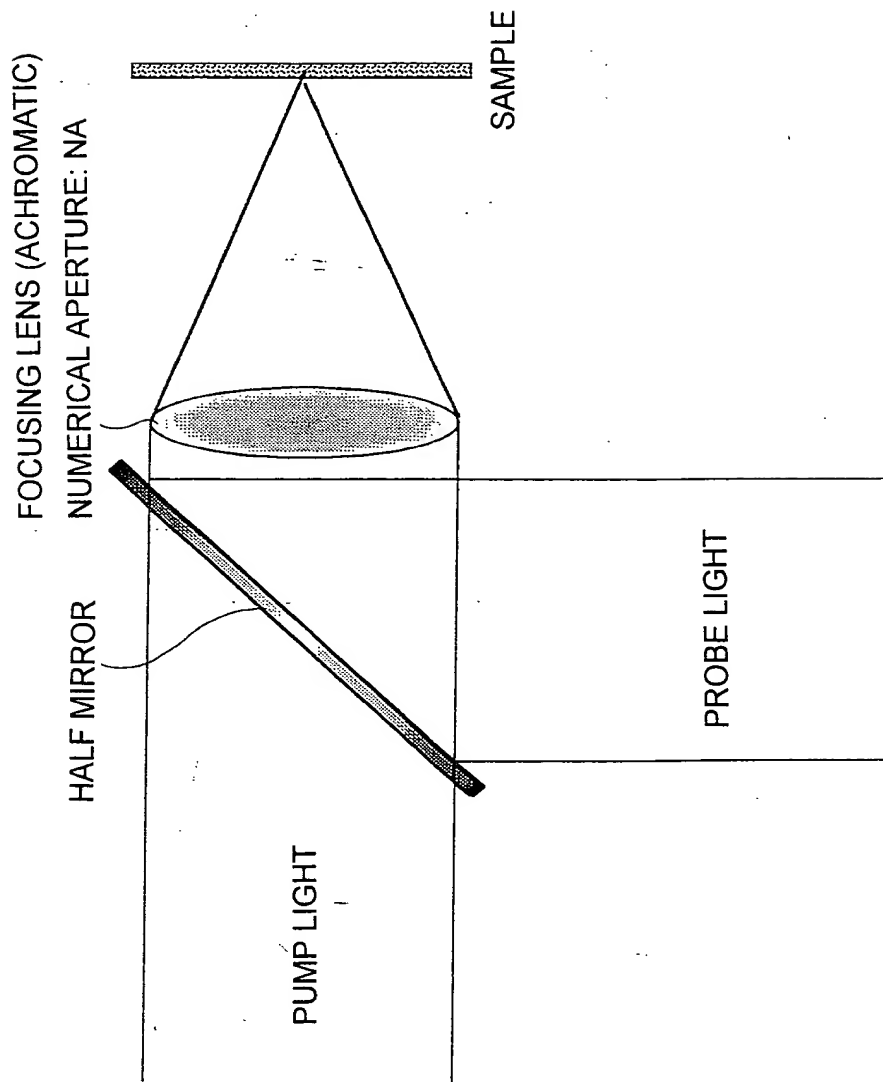


FIG. 50

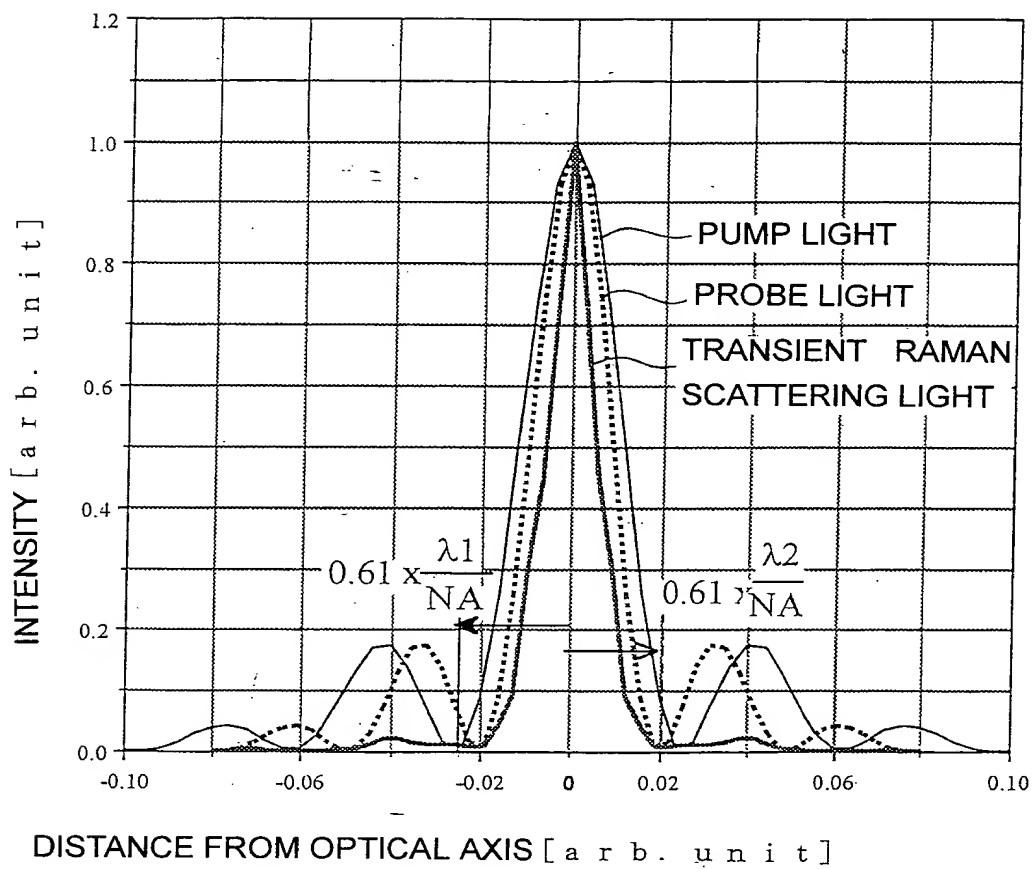
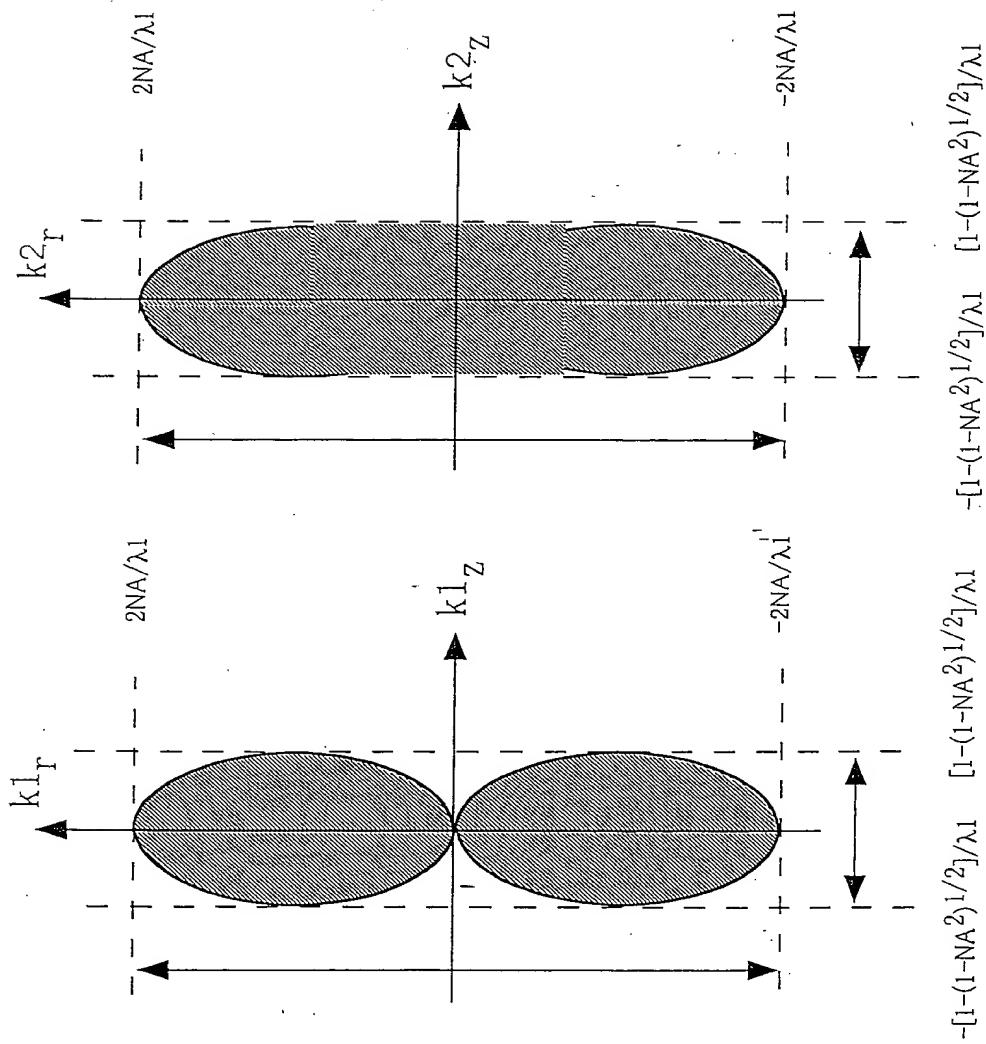


FIG. 51



(a) NORMAL ONE-PHOTON EXCITATION (b) TRANSIENT RAMAN PROCESS
PROCESS

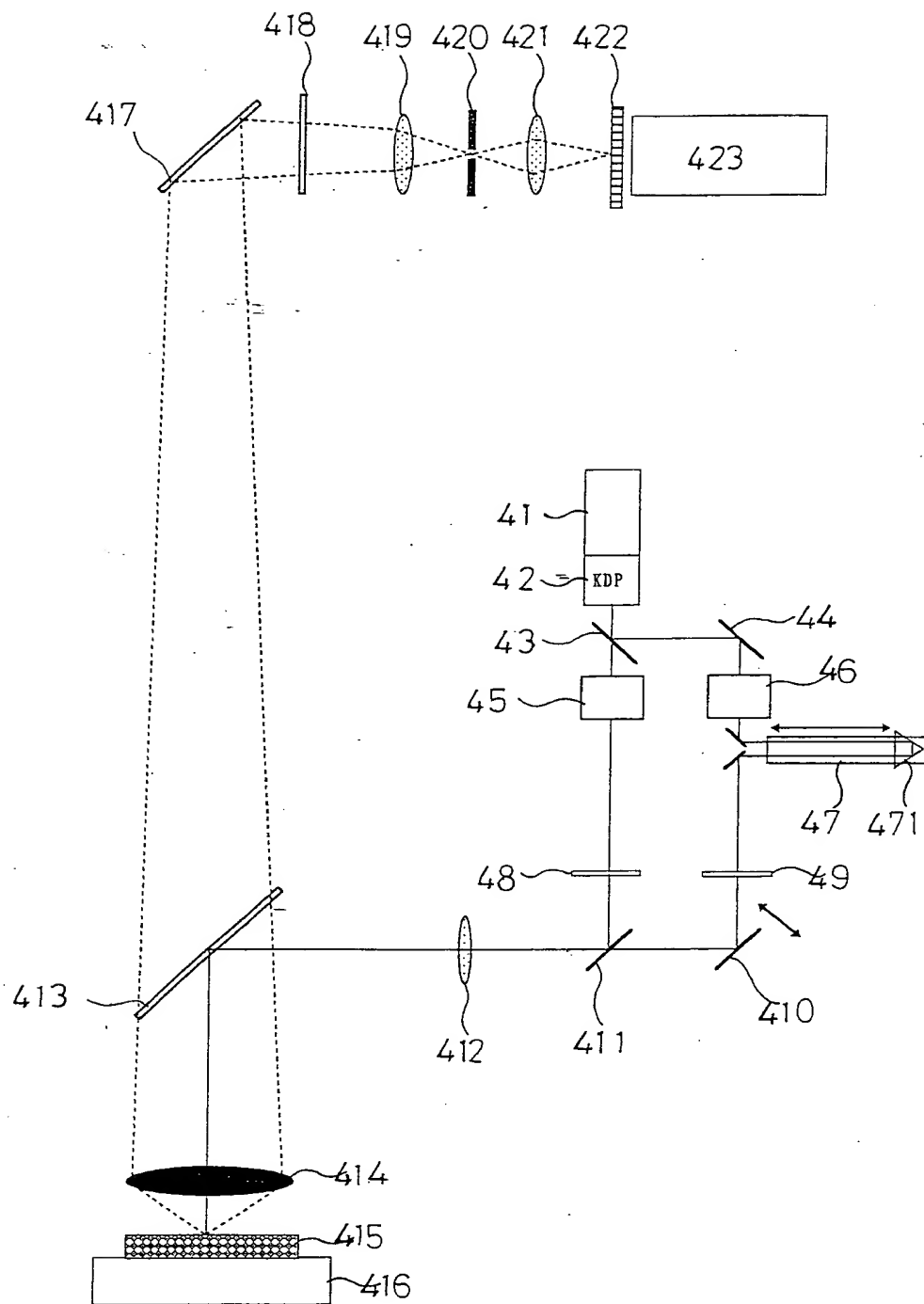


FIG. 53

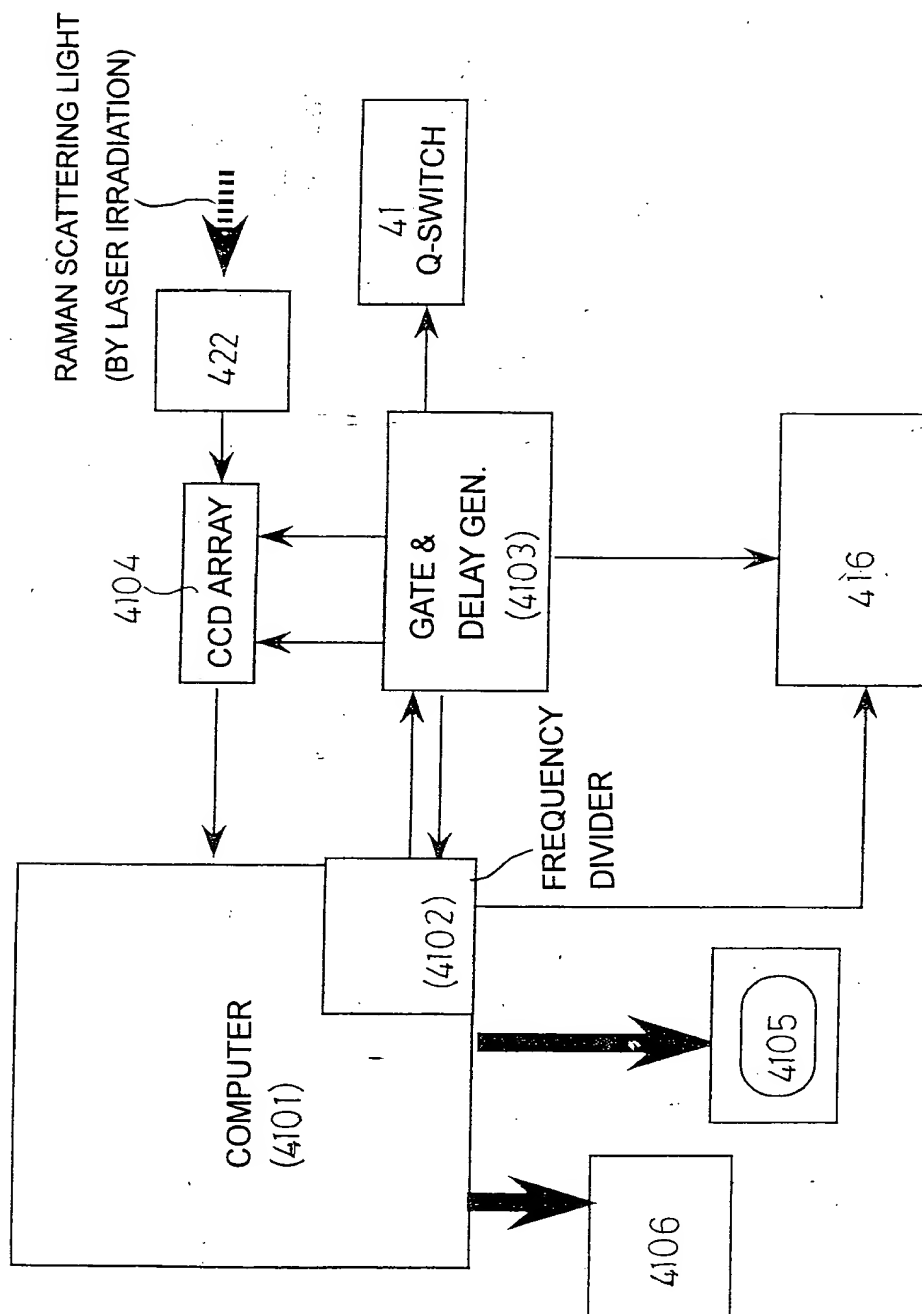


FIG. 54

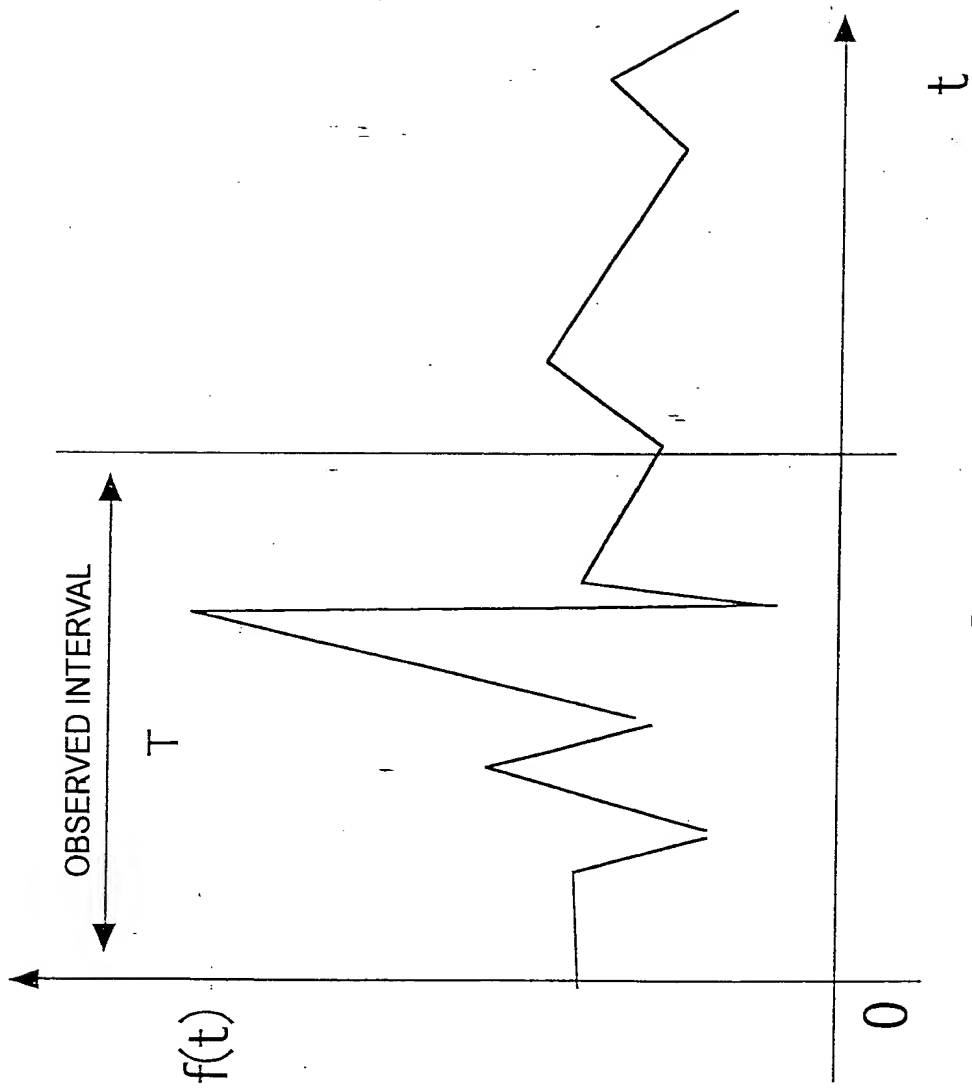


FIG. 55

the first and second light sources are positioned to illuminate the sample from opposite sides of the sample.

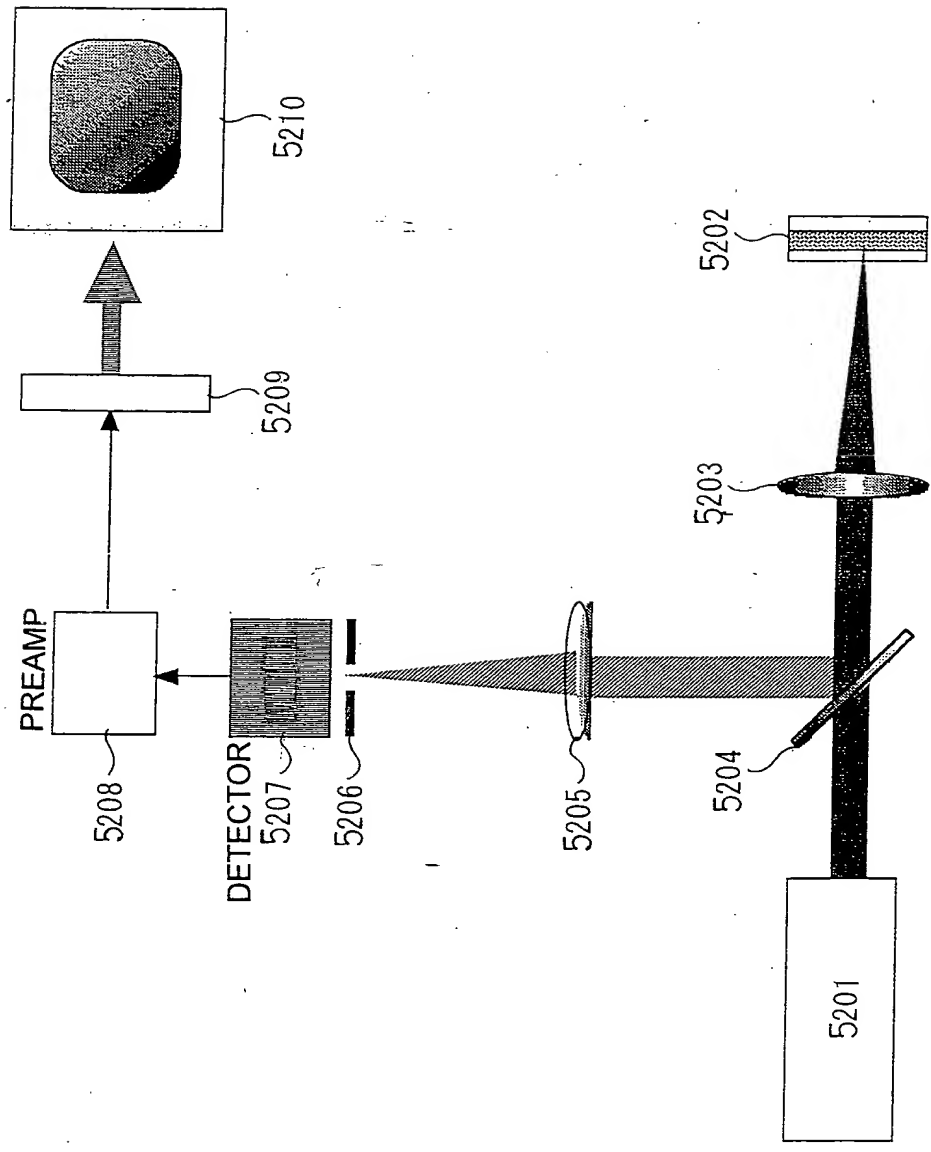


FIG. 56

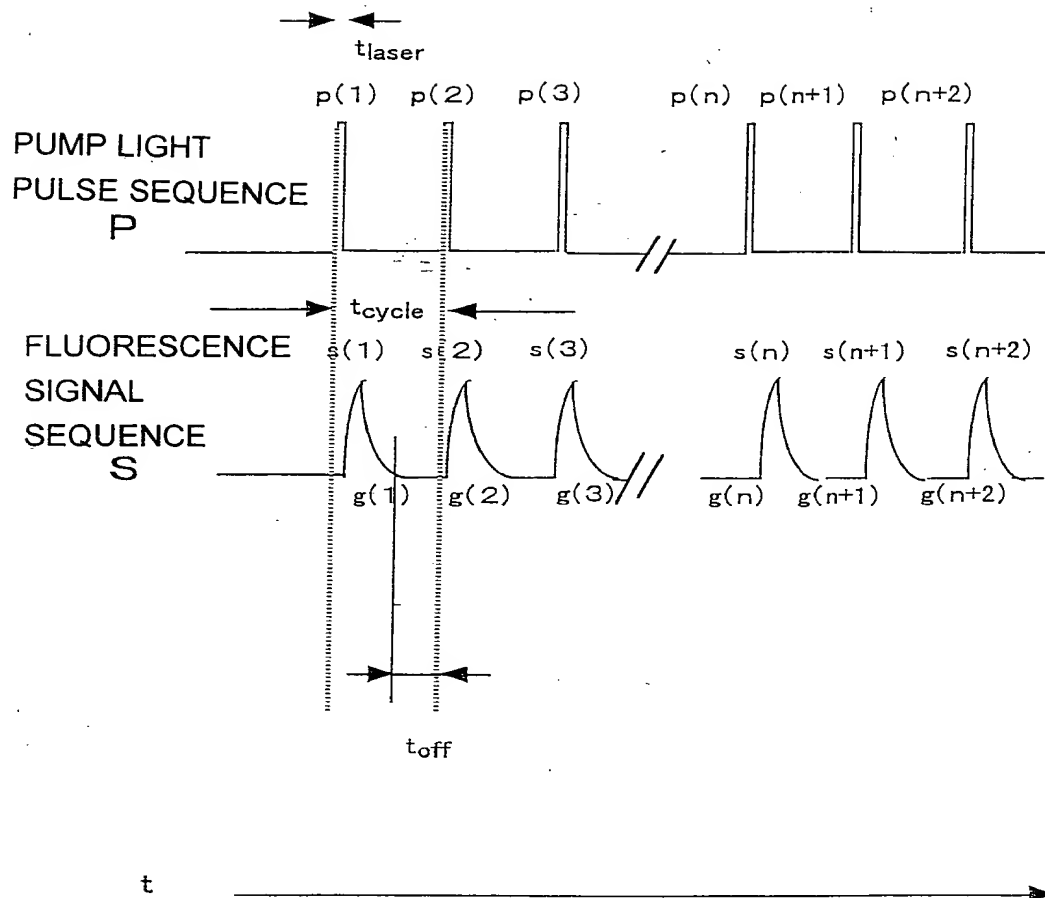


FIG. 57

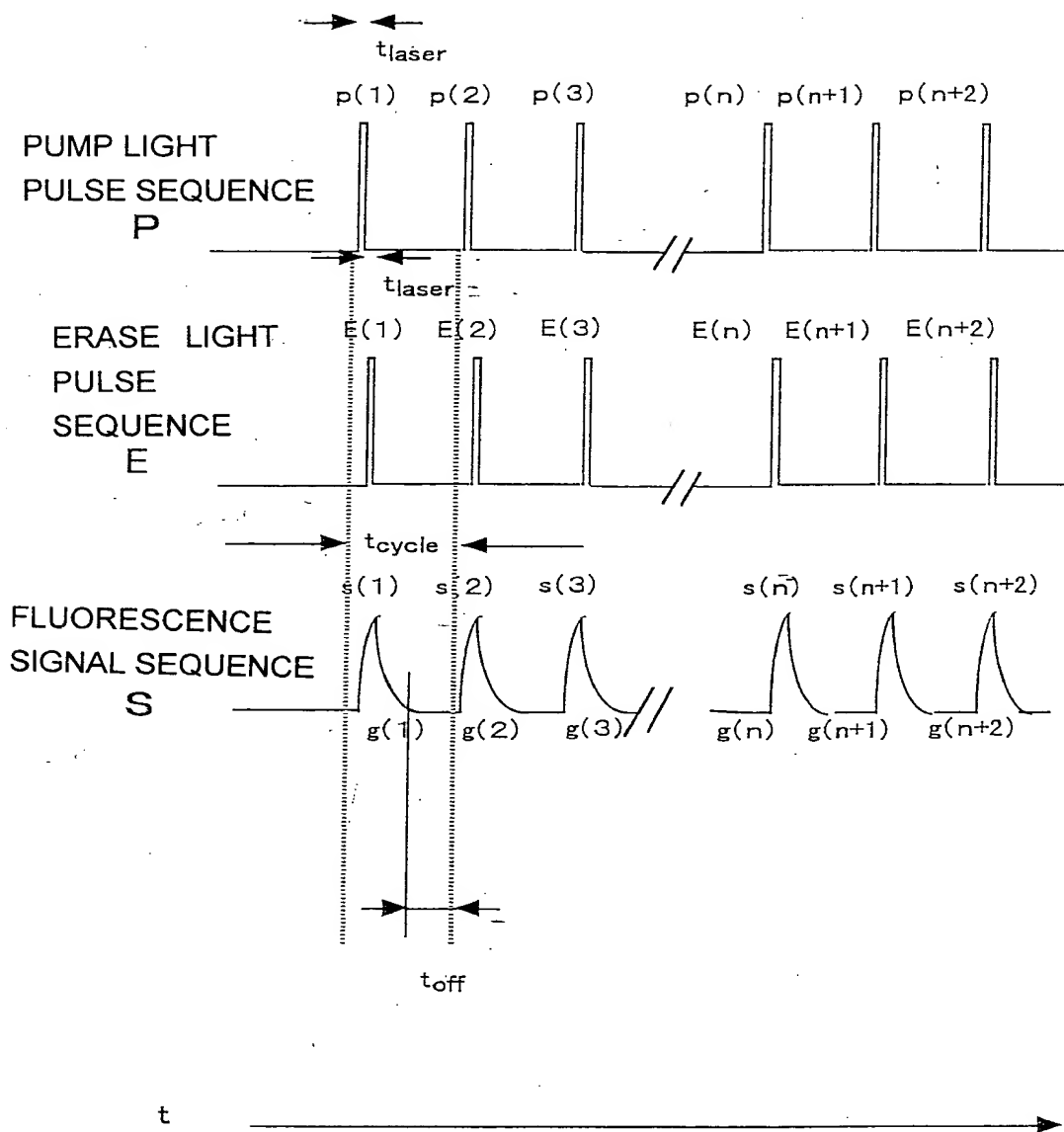


FIG. 58

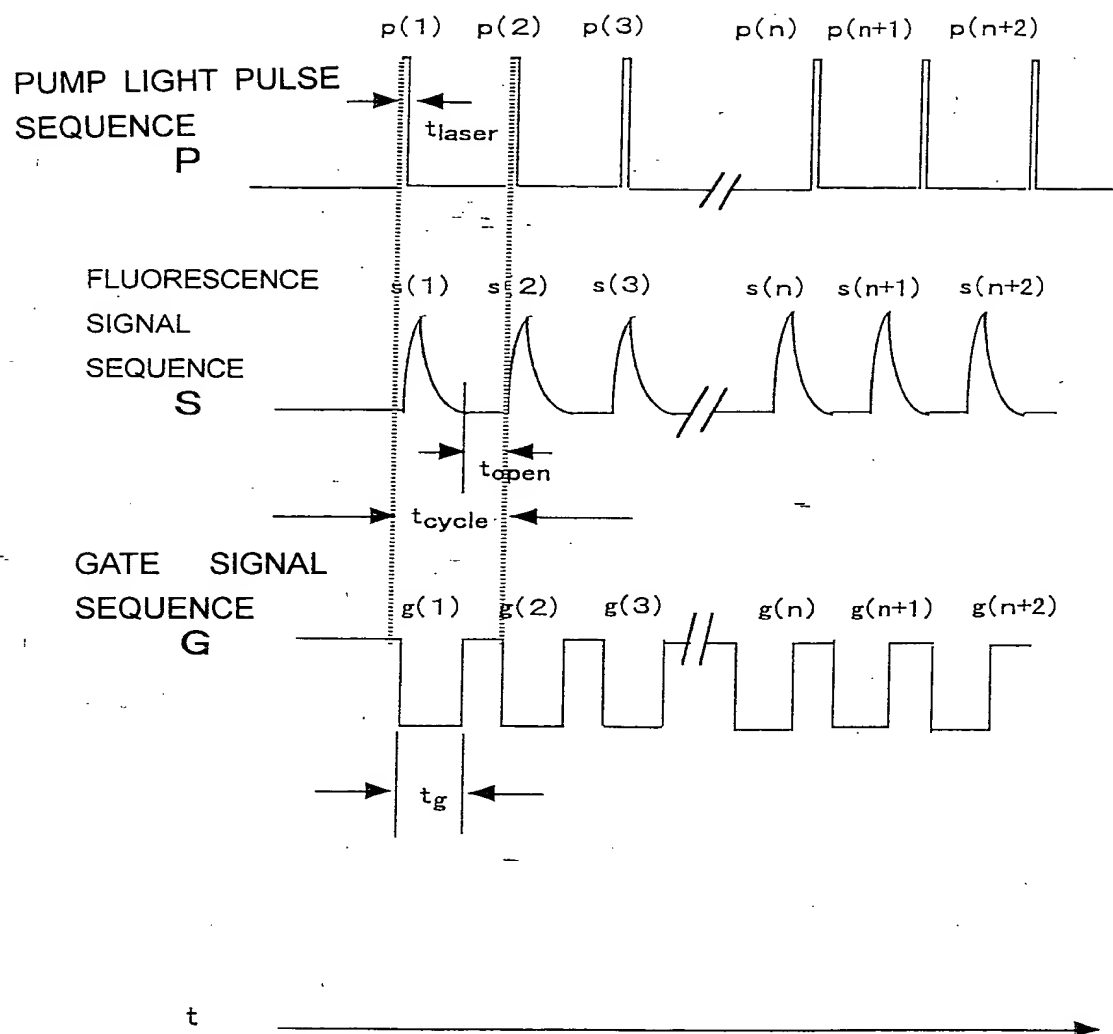


FIG. 59

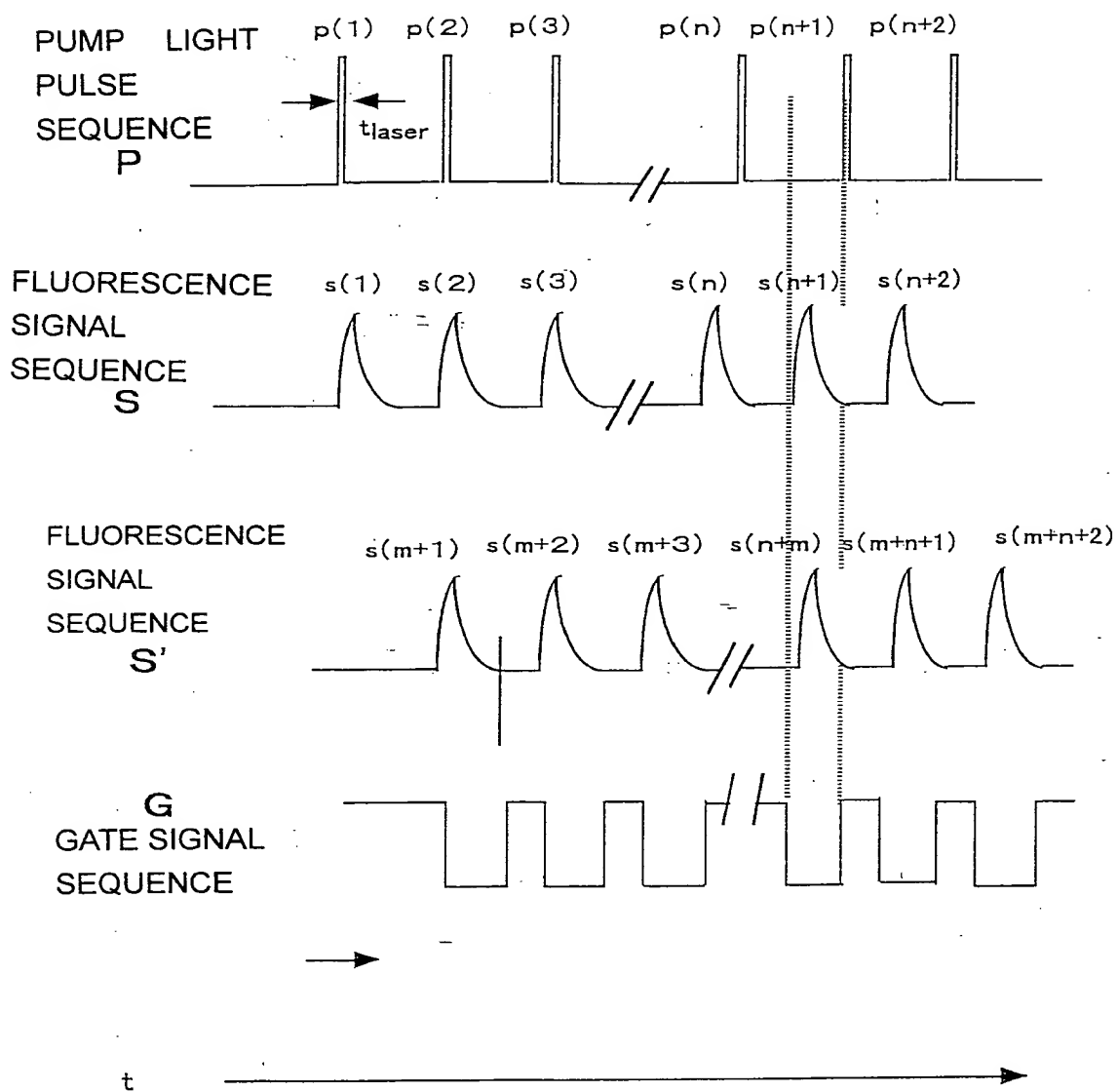


FIG. 60

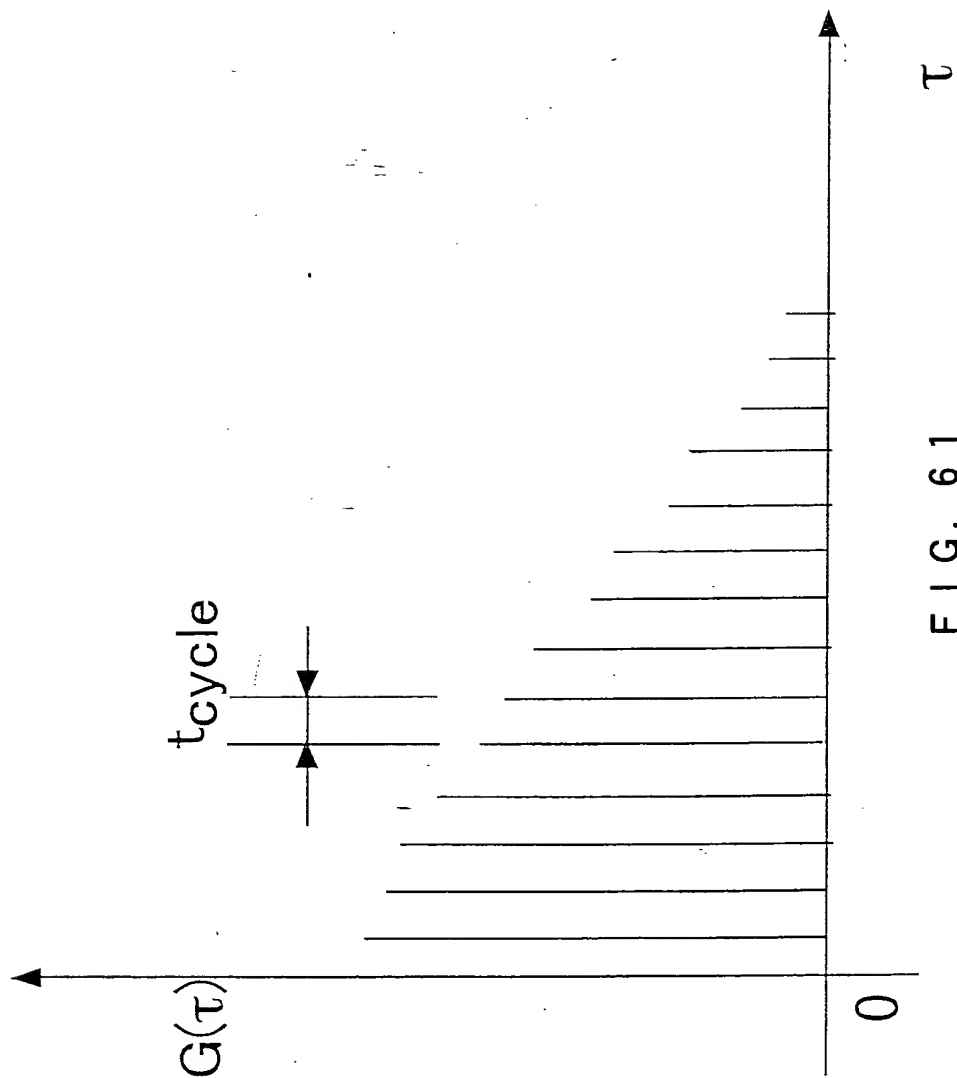


FIG. 61

FIG. 62 is a block diagram of a system for measuring the fluorescence of a sample.

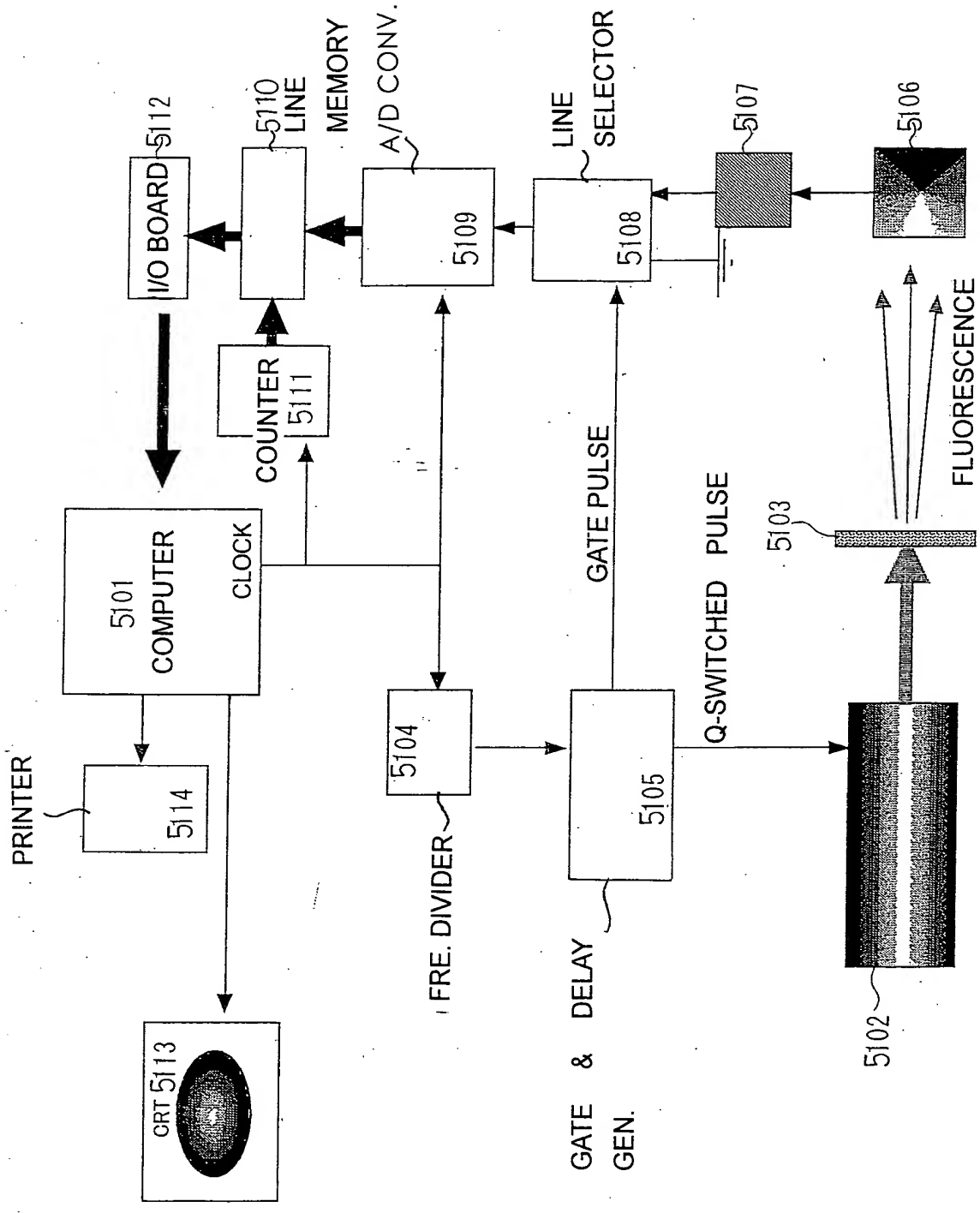


FIG. 62

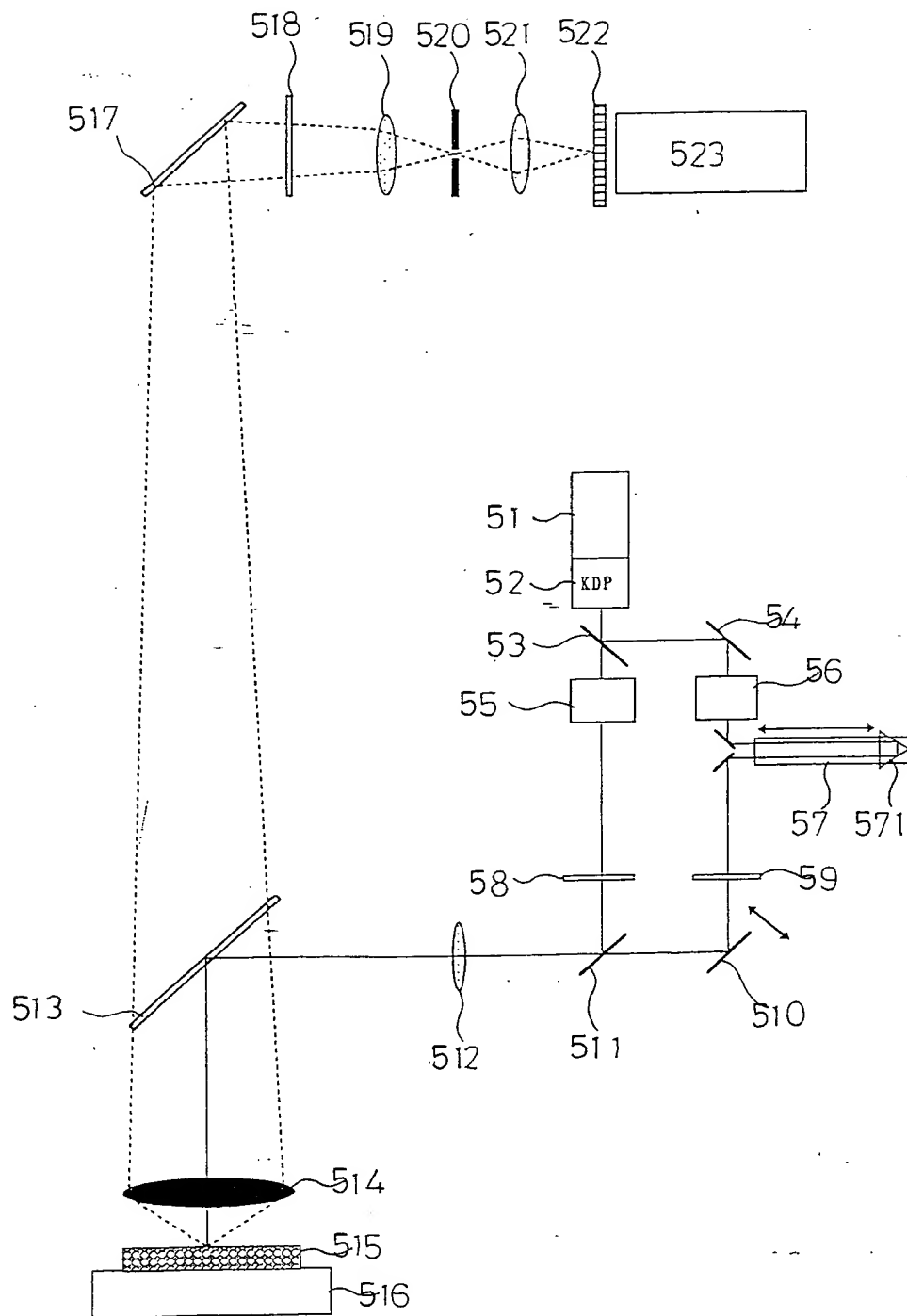


FIG. 64